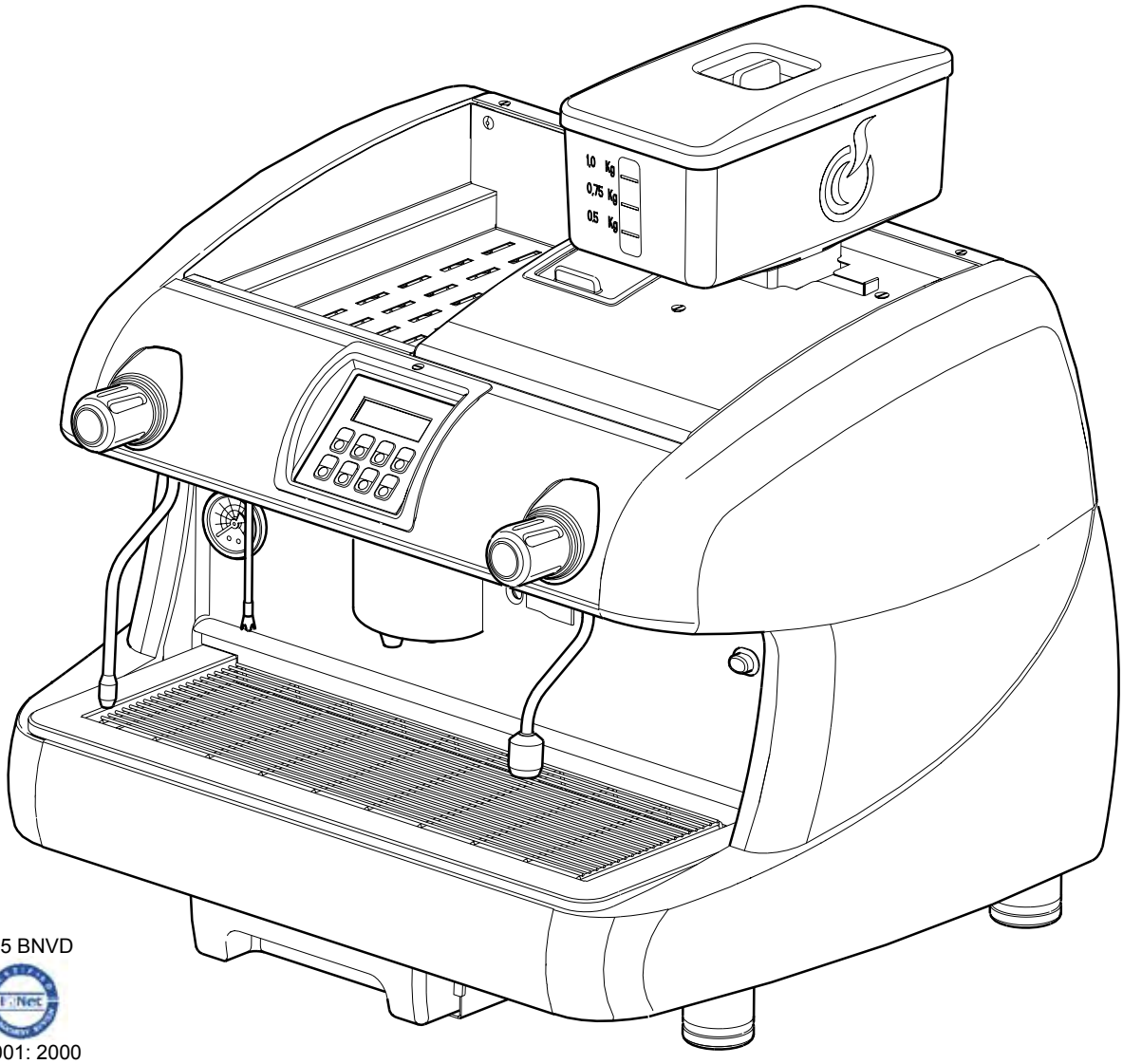
USE AND MAINTENANCE MANUAL

BVM 351



CERT. N° 9105 BNVD

UNI EN ISO 9001: 2000

CERT. N° 9191 BNVN

UNI EN ISO 14001:2004

DECLARATION OF CONFORMITY

La **BIANCHI VENDING GROUP S.p.A.**
Corso Africa, 9 - 24040 Zingonia di VERDELLINO (BG) Italia

hereby declares under its own liability that the family of coffee machines - model:

BVM351

complies with the Basic Safety Reqirements as specified in the Directives listed below:

1) **73/23 CEE Low Tension ⇒ 93/68/CEE -BT-**
2) **89/336/CEE Electromagnetic Compatibility ⇒ 91/263/CEE ⇒ 92/31/CEE ⇒ ⇒ 93/68/CEE ⇒ 2004/108/CEE -EMC-**
3) **EC REGULATION 1935/2004 on materials and articles intended to come into contact with food.**
   EC COMMISSION REGULATION 1895/2005 on the restriction of use of certain epoxy derivatives in materials and articles intended to come into contact with food, COMMISSION DIRECTIVE 2002/72/EC relating to plastic materials and articles intended to come into contact with foodstuffs.

The tests/checks have been performed in accordance with the current Harmonized/European Regulations

1) **LOW TENSION (LT Electric Safety)**:

CEI EN 60335-1 : 2004-04 +	
CEI EN 60335-1/A1/A11:2005	(General Electric Safety Regulation)
CEI EN 60335-2-75: 2003-06	(Special requirements for commercial dispensers and automatic vending machines)
EN ISO 11201 + EN ISO 3744	Measurement of acoustic noise

2) **ELECTROMAGNETIC COMPATIBILITY (EMC)**

EN 55014-1	Emissions (conduced and irradiated via power supply cable)
EN 55014-1	Emissions (intermittent conductor)
EN 61000-3-2	Emissions (harmonic)
EN 61000-3-3	Emissions (flickers)
EN 61000-4-4	Immunity (against transient/burst quick trains)
EN 61000-4-5	Immunity (against surge pulse)
EN 61000-4-6	Immunity (against conduced noises, induced by radiofrequency fields)
EN 61000-4-11	Immunity (against tension holes…)
EN 61000-4-2	Immunity (against electrostatic discharges)
EN 50366	Measurement of the electromagnetc field around the vending machine

3) **SUITABILITY OF MATERIALS USED FOR CONTACT WITH FOOD**
Testing for "Suitability to contact with foodstuffs", as provided for by Italian legislation on the issue ⇒ Ministerial Decree dated 21-03-1973 and all subsequent amendments, ⇒ Decree dated 4th May 2006 no. 227, and via the adoption of the following European Directives: 82/711/EEC, 85/572/EEC, 93/8/EEC, 97/48/EC, 2002/72/EC, 2004/13/EC, 2004/19/EC, 2005/79/EC and Commission Regulations EC n. 1935/04 and EC n. 1895/2005.

CHIEF EXECUTIVE OFFICER
Omero De Martin

Zingonia di Verdellino (BG), 01/01/2010

INFORMATION TO THE USERS

Under Legislative Decree 25 September 2007, no.185 and art. 13, Legislative Decree 25 July 2005, no.151 "Implementation of Directives **2002/95/EC, 2002/96/EC** and **2003/108/EC**, regarding the reduction of use of hazardous substances in electrical and electronic equipment as well as waste disposal".

The barred waste container symbol on the equipment means that the product, at the end of its service life, must be disposed of separately from the other types of waste.

The user must therefore convey the equipment, at the end of its service life, to the appropriate separate collection centres for electronic/electrotechnical waste products or return it to the dealer when purchasing a new equivalent equipment.

The appropriate separate collection and the following sending of the used equipment to recycling, treatment and eco-friendly disposal will help avoid negative effects on the environment as well as on health along with an easier recycling of the materials forming the equipment.

Any unauthorized disposal of the product by the user will imply the enforcement of the administrative sanctions as set out in Legislative Decree no. 22/1997 (article 50 and following articles, Legislative Decree no. 22/1997).

Bianchi Vending Group S.p.A.
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Declaration of Conformity

RoHS Directive

DIRECTIVE 2002/95/EC OF THE
EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003
on the restriction of the use of certain hazardous
substances in electrical and electronic equipment

Bianchi Vending Group S.p.A. declares:

Starting from July 1st 2006 any product manufactured by "Bianchi Vending Group Spa" on the European market is Rohs Directive compliant and do not contain concentrations exceeding limits allowed for the following substances:

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent Chromium (Cr(VI))
- Polybrominated Biphenyls (PBB)
- Polybrominated Diphenyl ethers:
  - o Polybrominated diphenyl ethers (PBDE)
  - o Octabromodiphenyl ether (OctaBDE)
  - o Decabromodiphenyl ether (DecaBDE)
- Perfluorooctane sulfonate (PFOS)
- PolyChloro Naphthalenes (PCN)
- Bis(tribromophenoxy)ethane Polychlorinated biphenyl (PCB)
- Benzene

CHIEF EXECUTIVE OFFICER

Zingonia di Verdellino (BG), 12 January 2010

BEFORE USING THE MACHINE, READ THIS MANUAL CAREFULLY FOR ITS CORRECT USE IN ACCORDANCE WITH THE CURRENT safety STANDARDS.

ATTENTION: *Important safety indications*

READ *the instruction manual machine carefully before using the machine*

For any service or maintenance ***switch off*** *the machine*

ATTENTION: *machine switched on*

ATTENTION: *hot parts in contact!*

Earthing indication

IMPORTANT NOTICES

OPERATOR

By "operator" we mean the person assigned to machine use and operation and to coffee refilling tasks. The operator must furthermore take care of all the necessary machine cleaning operations. In the event of machine breakdowns, the operator is required to contact the installation and service technicians accordingly.

INSTALLATION TECHNICIAN

The installation technician is defined as the person responsible for the installation of the coffee machine, the starting up operations and the function settings.
Each regulation operation is the exclusive responsibility of the installation technician who also holds the programming access password.

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1.0 INTRODUCTION

1.1 *Directions and instructions for operators*

This coffee brewing machine has been engineered and constructed in full compliance with all the laws and regulations currently in force on safety issues. It is deemed as being safe to machine operators that accurately comply with all the directions and instructions provided in this Manual.

The user must not under any circumstances remove the guards that require a tool for removal.

Some maintenance operations (to be done solely by specialized technicians and indicated in this manual with a special symbol) require that specific safety protections of the machine must be switched off .

In accordance with the current safety regulations, certain operations are the exclusive responsibility of the installation technician, and the ordinary maintenance technician may have access to specific operations on with specific authorization.

The acquaintance and absolute respect, from a technical point of view, of the safety instructions and of the danger notices contained in this manual, are fundamental for the execution, in conditions of minimum risk, for the installation, use and maintenance of this machine.

1.2 General Instructions

Knowledge of the information and instructions contained in the present manual is essential for a correct use of the coffee machine on the part of the user.

Interventions by the user on the coffee machine are allowed only if they are of his competence and if he has been duly trained.

The installation technician must be fully acquainted with all the mechanisms necessary for the correct operation of the coffee machine.

- *It is the buyer's responsibility to ascertain that the users have been trained and are informed and regulations indicated in the technical documentation supplied.*

  Despite the full observance of the safety regulations by the constructor, those who operate on the coffee machine must be fully aware of the potential risks involved in operations on the machine.
- *This instruction manual constitutes an integral part of the coffee machine and as such, it must be always be on hand in the vicinity of the machine for easy consultation by the various machine operators, right until the machine is actually stripped and scrapped.*
- *In case of loss or damage of the present manual it is possible receive a new copy making application to the manufacturer, with prior indication of the data registered on machines' serial number.*
- *Modifications to the machine not previously agreed on with the construction company and undertaken by the installation technician are considered to be under his entire responsibility.*

  All the operations necessary to maintain the machine's efficiency, before and during it's use are at the users charge.
- *Any manipulations or modifications made to the coffee machine that are not previously authorized by the manufacturer, relieve the latter from any responsibility for damages deriving from, and will automatically result in the cancellation of the machine guarantee terms.*
- *This manual reflects the status at the moment of the emission of the coffee machine on the market; possible modifications, upgrading, adaptments that are done the machine and that are subsequently commercialized do not oblige* ***Bianchi Vending Group Spa*** *neither to intervene on the machine previously supplied, nor, neither to update the relative technical documentation supplied together with the machine.*

– *It is however* ***Bianchi Vending Group****'s faculty, when deemed opportune and for valid motives, to adjourn the manuals already present on the market, sending to their customers adjournment sheets that must be kept in the original manual.*

Possible technical problems that could occur are easily resolvable consulting this manual ; For further information, contact the distributor from whom the machine has been purchased, or contact Bianchi Vending Group's Technical Service at the following numbers:

035-4502111 - fax 02 70048332

Whenever the machine servicing facilities are contacted, it is necessary to quote the data on the serial number rating plate (Fig.1.1).
Bianchi Vending Group S.p.A. hereby declines each and every liability whatsoever arising for damages to persons and/or objects subsequent to failure to observe the following directions and warnings during installation and/or operation of the coffee machine:

. The machine must be exclusively positioned in places where use is strictly reserved to appropriately trained personnel.
· Potentially hazardous machine packing material (plastic bags, expanded polystyrene, cardboards staples and nails, etc) must strictly not be left on hand for access by children.
· Prior to connecting up the machine, check to ensure that the rating plate data is compliant with the power mains. The use of adapters, multiple socket strips and/or extensions is strictly prohibited.
· In case of uncertainty, have the power supply system inspected by qualified personnel. The system must comply with all the relative provisions and regulations in force, amongst which:
  - machine grounding;
  - conductor sectioning to be appropriately sufficient for electrical input;
  - circuit breaker device, suited to overload cat. 3.
· Check to ensure that the mains voltage does not have a displacement greater than 6%.
· Check to ensure that the pressure is comprised between 0.5 and 5 bar.
· The machine is not intended for installation in industrial kitchens, private consumer kitchens and the likes.
. The machine is not intended for outdoor installation or for installation in places subject to water sprays and/or water jets.
· Position the machine on a waterproof surface (i.e. laminate, steel, ceramic tiling, etc.) and far away from heat sources (ovens, cookers, chimneys, etc.), in sites where the ambient temperature will not drop below 5°C.
· Position the machine onto a support surface so that the cup heater is located at a height 150 cm above floor level.
· Do not expose the machine to bad weather or install it in environments with excess ambient humidity.
· Do not in any way obstruct the suction or dissipation grids and particularly do not cover the cup heater surface with dishcloths or other objects.
· When packed, the machine must be stored in sufficiently dry storage facilities with temperatures not less than 5°C. It is possible to stack only up to three packages of the same machine on top of one another. Avoid placing any other types of heavy packages on top of the machine package.
· To ensure standard operations, the appliance must be installed in sites where the environmental temperature is comprised between a minimum +5°C and a maximum +50°C temperature and where the absolute humidity is not in excess of 75%.
· Do not position the appliance in the vicinity of inflammable objects and always keep a safety distance of at least 30 cm.
· Removal of mechanical, electrical and/or heat safety guards and protections is strictly prohibited.
· In the event of emergencies such as conflagration and fire, out of the order noises and heating, etc. immediately unplug the machine from the power mains, close any water and/or gas supply taps and faucets as the case may be.
. In the event that during handling and transport operations the machine where to transit in ambient temperatures close to or under 0°C, the technician is required to subsequently empty out the hydraulic circuit.
  The standard factory conditions provide for machine delivery without water in the internal circuits.
· To ensure faultless machine operations, use only accessories and spares as authorised by the manufacturer.
· The coffee machines have been engineered and constructed for the brewing of espresso coffee and other hot drinks. Any other use is considered as improper and hazardous machine use.
· The machines are intended exclusively for foodstuff preparation purposes. The use/introduction of liquids and/or other substances that may generate hazards and/or contaminate the dispensers.

Bianchi Vending Group S.p.A can in no way whatsoever be held liable to compensation for any possible damages arising due to forced interruptions of machine dispensing operations caused by breakdowns and failures.

The operator must:

· Not come into contact with any hot machine parts and/or with the dispensing area.
· Not place containers holding liquids onto the machine.
· Not undertake maintenance and/or handling operations with the machine plug still in the power mains or when not cooled down.
· Not wash the machine with direct, pressurised water jets.
· Neither partially nor entirely submerge the machine in water.
· Not use the machine if the electric power supply cable looks as though it is damaged.
· Not touch the machine with wet or moist hands and/or feet.
· Not use the machine if minors are present in the immediate vicinity thereof.
· Not allow the machine to be used by minors or disabled individuals.
· Not obstruct the heat suction or dissipation grids with dishcloths or other objects.
· Not use the machine if it is in any way wet or moist, unless it is the machine's dispensing area.

The manufacturer hereby declines each and every liability for damages whatsoever arising to persons and/or things due to improper, wrong or unreasonable use of any one of the machines by non-professional operators.

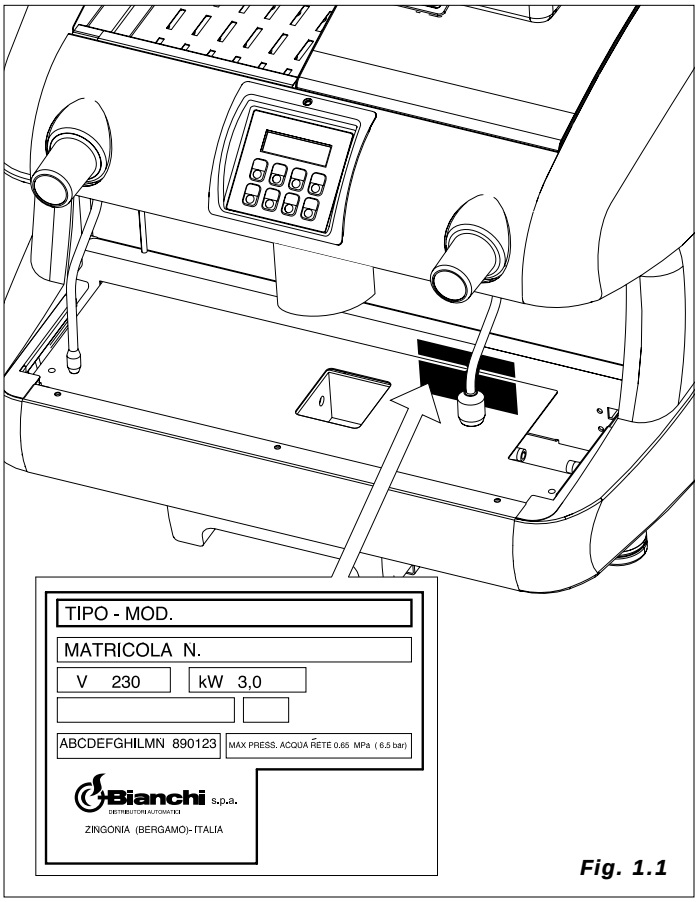


Fig. 1.1

2.0 DESCRIPTION OF THE MACHINES

The super automatic **BMV 351** coffee machines have been engineered and constructed for the brewing of espresso coffee and other hot drinks. Any other use is held as being improper or dangerous.

The manufacturer hereby declines each and every liability for damages whatsoever arising to persons and/or things due to improper, wrong or unreasonable use of any one of the machines.

The machine operator must observe all the use and maintenance instructions in this manual, at all times. Should any doubts on operation or anomalies arise, stop the machine, do not attempt repairs or direct interventions on the machine and immediately contact the service facilities accordingly.

The **BMV 351** coffee machines are available either in mains water supply version, or self-feeding tank water supply version.

The dispensing group is heat set and stabilised to ensure optimised utilization of all the noble coffee components. An electronic device warrants for optimised hot water auto-levelling in the boiler unit. Water and steam dispensing is provided via 2 high-performance multi-direction spouts that allow for the preparation of hot drinks.

The **BVM351** model is provided with a coffee container that feeds the coffee grinder for preparation of the ground coffee that is then conveyed into the coffee group subsequent to a dispensing request.

A milk intake device is furthermore provided, for milk intake directly from the jug. This allows for cappuccino or frothy milk supply, directly from the relative dispenser.

Said technical solutions ensure that energy wastes are prevented thereby safeguarding the machine from dangerous thermal shocks.

Water as necessary is tapped in directly from the water mains and is pressurised via a sealed or maintenance free volumetric pump. Water heating is provided via conductive thermal exchange in the boiler unit.

By activating the appropriate controls located on the machine's frontlet panel, optimally pressurised and heated water is delivered to the dispensers.

The machine is provided with a steel structural framework, onto which all its mechanical and electric components are fixed.

The machine bodywork is in stainless steel and Baydur to guarantee optimised protection and safety combined with unique designing.

3.0 TECHNICAL SPECIFICATIONS

3.1 Machine dimensions and weights

DIMENSIONS AND WEIGHTS	
Length [mm]	660
Depth [mm]	530
Height (hopper excluded) [mm]	470
Weight [kg]	50
Boiler capacity: steam area [litres]	3,5
Boiler capacity: injector area [litres]	1/3
PACKING	
Length [mm]	740
Depth [mm]	620
Height [mm]	560
Power supply voltage	230 V
Power supply frequency	50Hz
Power input	2500W
Rated pressure of the steam boiler	2,2 bar
Pressure of the espresso boiler	11 bar

3.2 Items on issue with the machine

Inlet tube 1.7 m long	N°1
Discharge tube 1.5 m long	N°1
Instruction manual	N°1
Wiring diagrams	N°1

3.3 Mechanical safety devices

- Complete safety and protection panelling on all hot machine parts and on the hot water and steam generator.
- Work surface with grid and liquid collection tray.
- Expansion valve on the hydraulic system and pressure overload safety valve on the heater.
- Non-return valve on the hydraulic system to avoid refluxes into the water mains.

3.4 Electrical safety devices

- Low-voltage keypad controls
- Thermal overload protection on the pump motor
- Thermal overload protection on the resistance elements

3.5 Environmental noise

Sound pressure levels amounting to 70dB(A) are not normally exceeded on the machine operation site.

3.6 Vibrations

The machines are equipped with vibration-proof rubber feet. In standard working conditions, the machines do not generate dangerous vibrations, neither for the operator nor for the environment.

4.0 TRANSPORT

4.1 Packing

The machine is delivered in one single cardboard package, with internal expanded polystyrene safety padding inserts.

The packing is provided with conventional symbols to be accurately observed during package handling and storing operations.

During transport the package must be kept in a consistently vertical position.
Do not turn upside down or onto one side.
Transport carefully avoiding bumps and impacts and exposure to bad weather.

4.2 Inspection on delivery

Upon delivery, check to see that the machine complies exactly with the description provided on the transport documents, accessories included.

Check to see that the machine has not been subject to transport damages. If it has, immediately report the occurrence to the forwarder as well as to our customer service department.

Potentially hazardous machine packing material must strictly not be left on hand for access by children.

Do not disperse the packing material in the environment but ensure that it is accurately disposed of via appropriate packing and waste recycling facilities.

5.0 INSTALLATION

The machines are fitted with height-adjustable feet. Ensure that height is adjusted identically for all the four base feet.

The positioning support surface must be evenly levelled, dry, strong and stable, to be positioned at a height of at least 110 cm from the floor.

For correct machine operations it is not necessary to anchor it to the support surface and neither are technical devices required to limit vibrations.

It is hereby recommended that some free space is left all around the machine, to make use and maintenance operations quick and easy

Do not install the machine if it is wet or moist and wait until the machine is surely and completely dry. Prior inspections by the service personnel are anyway necessary, to warrant that the machine's electrical components are not damaged.

In the event that the machines are equipped with a water treatment unit, said unit must be hooked up by the installation personnel in full compliance with all the existing laws and regulations in force.

In the event of installation of different water treatment units not specifically dedicated to the machine, make sure that all the relative product documentation is completely observed.

5.1 Utilities to be provided by the customer

All the utility connection operations must be conducted by qualified personnel, in full compliance of the federal, state and/or local rules and regulations in force.

5.1.1 Power supply

The machine is supplied ready for connection to the on-site power mains according to the specifications requested upon purchasing.

Prior to connecting up the machine, check to ensure that the rating plate data is compliant with the power mains voltage data.

The power supply cable, that must be wholly undamaged, must be hooked up directly into the previously prepared utility connections as per all the rules and regulation in force.

The grounding and atmospheric overload discharge safety and protection systems must mandatorily be executed as per all existing laws and regulations.

For connection to the power mains, implement only an up-to-standard cable, provided with a safety (grounding) conductor.

For the single-phase power supply, use a 3 conductor (3-phases + neutral + ground) connector.

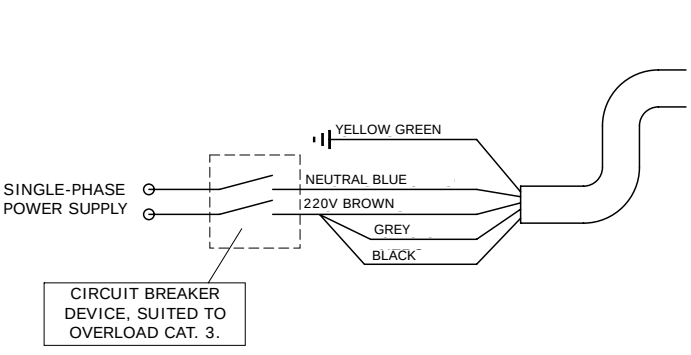


Fig. 5.1

In both cases, a differential switch must be arranged upstream of the power supply cable, complete with magnetic release switches compatible with the data provided on the machine rating plate.

The relative contacts must be provided with an opening equal or greater than 3mm.

We hereby remind that each machine must be provided with its own, individual safety devices.

In the event that the power supply cable is damaged, it must be replaced either by the manufacturer, by the manufacturer's technical services or by qualified personnel that is capable of preventing any possible hazards.

5.1.2 Water mains supply (Fig. 5.2, Fig. 5.3 and Fig. 5.4)

The water mains connections must be arranged to be in the vicinity of the machine.

- Liquid ground collection tank discharge tube
- Water supply tube

Following is the correct procedure for connecting the machine up to the water mains:

1 lift the drop collector tray (Fig. 5.2)

2 Remove screws (Fig. 5.3 – item 1) then remove the flat safety cover plate.

3 connect one end of the tube to the tube junction as illustrated in Fig. 5.4.

4 connect the other end of the tube up to the water mains. Check to make sure that there are no obstructions in the mains.

5 press the general switch, the machine will automatically fill in water up to the optimised set level.

For optimised machine operations we recommend the use of a water treatment/lime scale eliminator unit to be connected up prior to entry of the mains water into the machine.

5.2 Machine positioning

- Position the machine unit onto the horizontal surface as arranged, then carefully adjust height via the adjustable feet. Ensure that the machine is not inclined at an angle larger than 2°.

Prior to proceeding with the connection, accurately wash out the water mains tubes:

- open the mains water tap completely and let the water run for a few minutes.
- Proceed with connecting up the inlet and outlet water connections.
- Hook up the machine to the electrical power mains.

Proceed with accurately washing out all the machine water pipes.

For machine cleaning operations please refer to the specific instruction paragraphs provided in sections 7 and 8 herein.

If the machine has not been dispensing for longer than 24 hours, prior to starting operations proceed with washing out all the internal components by repeating all the operations listed above.

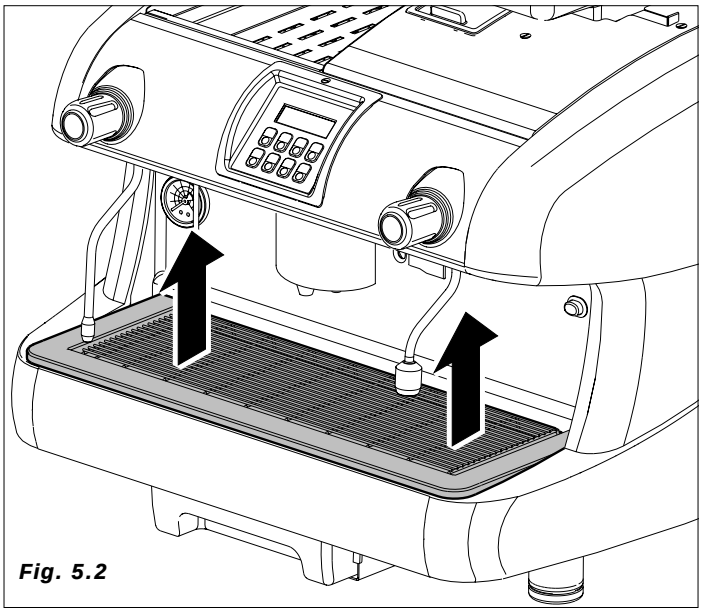


Fig. 5.2

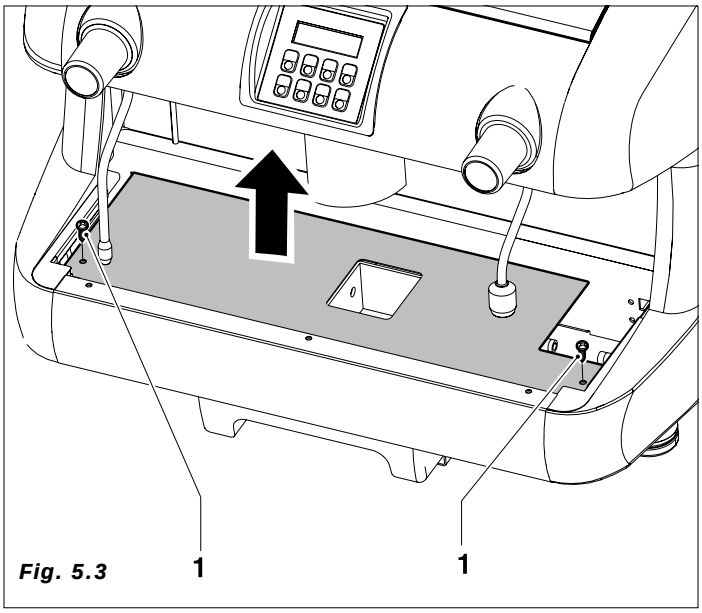


Fig. 5.3

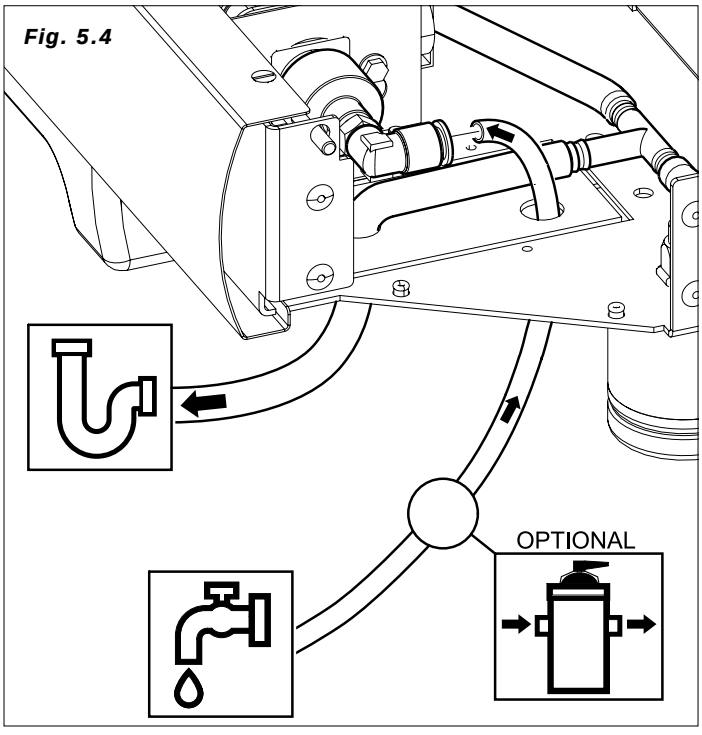


Fig. 5.4

6. COMMISSIONING

6.1 Machine control commands and devices

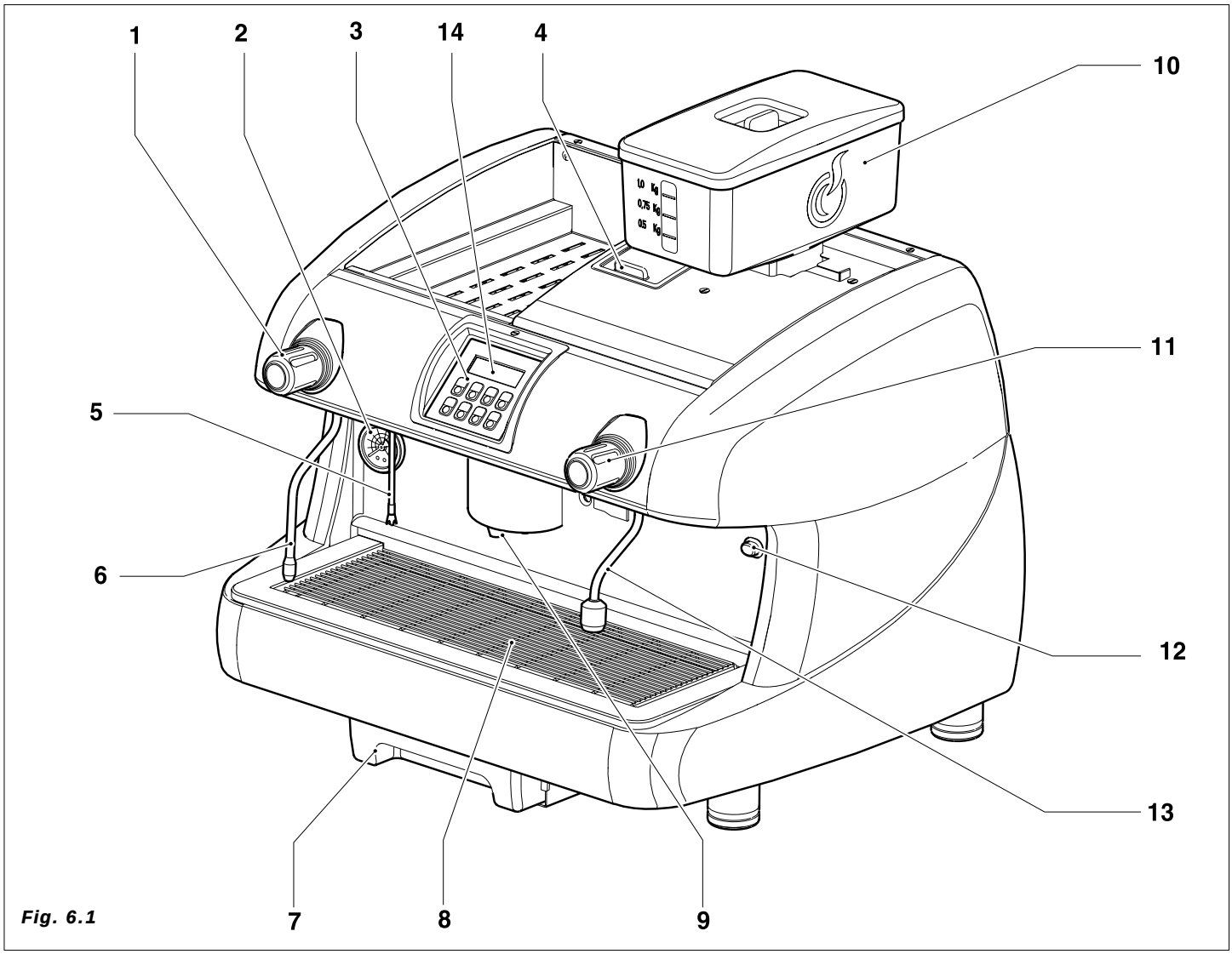


Fig. 6.1

1. Steam dispensing turn-knob
2. Boiler pressure gauge
3. Pushbutton control panel
4. Decaffeinated coffee compartment
5. Milk dispenser nozzle
6. Steam dispenser nozzle
7. Coffee grounds tray
8. Cup support grid
9. Coffee dispenser unit
10. Coffee bean container
11. Water dispensing turn-knob
12. General switch
13. Water dispenser pipe
14. Display

Functions:

The boiler pressure gauge (2) with a 0 to 2.5 bar scale, displays the boiler pressure level :

- When the indicator is in the interval between 0 and 0.8 bar i.e. with the blue background, the machine is in its heating up stage and therefore coffee dispensing is not recommended.
- The interval comprised between 0.8 and 1.6 bar indicates that the pressure and the temperature internally to the boiler are at their ideal levels for coffee preparation.

In the event that the pressure indicated by the pressure gauge (2) goes up to over 1.6 bar, switch the machine off immediately and contact the sales service network.

6.2 Avvio macchina

- After having run another examination of the electric and hydraulic system connections, open the hydraulic system inlet tap.
- Press the general switch (12) and wait until the electronic power pack that the machine is equipped with, executes the necessary control runs and activates the pump and electro valve for boiler fill-up.

If the boiler is already at full level, the automatic level control will prevent the pump from starting up again.

6.3 How to heat up a drink

- Plunge the steam dispenser nozzle (6) directly into the liquid that requires heating.
- Open the tap (1) gradually to enable the steam to exit the spout. This will enable the steam to gradually heat the liquid up to the required temperature.
- Once the temperature has been reached, close the steam tap (1).

Once done, immediately wipe off the steam dispenser nozzle using a clean, dry cloth.

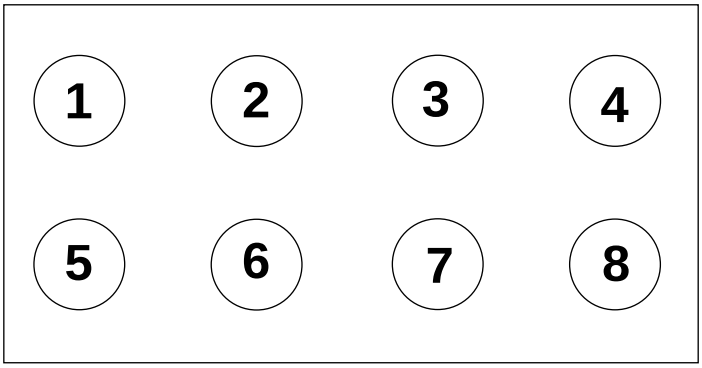
Warning: the nozzle will be very hot. To avoid skin burn hazards, avoid touching it directly whilst cleaning.

6.4 How to make teas and infusions

- Open the tap (11) gradually to allow for water to be dispensed until the required dose is reached. Then, add in the required drink product.

7.0 USE

7.1 OPERATION



PUSHBUTTON PANEL

The pushbuttons provided are meant for:

Pushbutton **1**	Strong coffee
Pushbutton **2**	Standard espresso coffee
Pushbutton **3**	“American coffee” (espresso plus a shot of water)
Pushbutton **4**	Decaffeinated
Pushbutton **5**	2 strong coffees
Pushbutton **6**	2 standard espresso coffees
Pushbutton **7**	Milk
Pushbutton **8**	Stop

7.2 DISPLAY MESSAGES

1. BLOCKING ALARMS

Alarm	
Out of order	When this message comes up on display it is possible to resort to: Pushbutton 7 to access the maintenance mode (by keeping it pressed in for 4 sec.) Pushbutton 8 to access the programming mode (by keeping it pressed in for 4 sec.)
E00 Eeprom error	When this message comes up on display it is possible to resort to: Pushbutton 7 to access the maintenance mode (by keeping it pressed in for 4 sec.) Pushbutton 8 to access the programming mode (by keeping it pressed in for 4 sec.)
E01 Communic.	When this message comes up on display it is possible to resort to: Pushbutton 7 to access the maintenance mode (by keeping it pressed in for 4 sec.) Pushbutton 8 to access the programming mode (by keeping it pressed in for 4 sec.)
E03 Config.	When this message comes up on display it is possible to resort to: Pushbutton 7 to access the maintenance mode (by keeping it pressed in for 4 sec.) Pushbutton 8 to access the programming mode (by keeping it pressed in for 4 sec.)

2. RESET

Diagnosis	
Reset	Upon machine start-up a machine reset cycle is run and the reset message stays on display until cycle-end.

3. WARM-UP

Please wait	
Warm-up	This message is displayed after the reset cycle if the pressure switch input is found to be open.

4. WASHING

Washing The above message is displayed once the washing procedure is started up and stays on display until the end of the washing operations. For further details refer to the washing management paragraph under the operation section.

5. DISPENSING

Please wait Dispensing This message is displayed during the drink dispensing cycle.

6. READY

Ready Ready for a selection.

7. NON-BLOCKING ALARMS

Alarms that are not stored

E02 Empty water tank

When this message comes up on display it is possible to resort to:
Pushbutton 7 to access the maintenance mode (by keeping it pressed in for 4 sec.)
Pushbutton 8 to access the programming mode (by keeping it pressed in for 4 sec.)

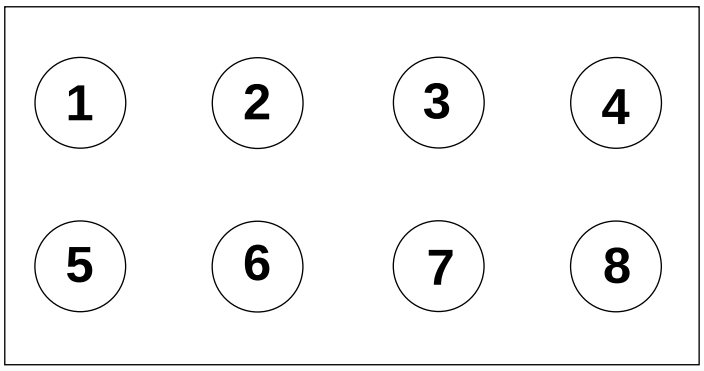
E20 Pressure switch

When this message comes up on display it is possible to resort to:
Pushbutton 7 to access the maintenance mode (by keeping it pressed in for 4 sec.)
Pushbutton 8 to access the programming mode(by keeping it pressed in for 4 sec.)

7.3 PROGRAMMING

ITEMS THAT CAN BE ACCESSED FROM THE DISPENSER

The programming mode is accessed by keeping pushbutton 8 pressed in for 4 seconds.



The pushbuttons provided are meant for:

Pushbutton **1**	Increment
Pushbutton **2**	Cursor
Pushbutton **3**	-
Pushbutton **4**	-
Pushbutton **5**	Decrement
Pushbutton **6**	Enter
Pushbutton **7**	-
Pushbutton **8**	Esc

All values in the display messages must be considered as the machine default values.

MENU 0 (MENU SELECTION)

Doses menu selection

The sub menus available for selection are as follows:
1. Doses (“ Doses ”)
2. Sales (“ Sales ”)
3. Temperature (“ Temperature ”)
4. Options (“ Options ”)
5. Timing and thresholds (“ Timing and thresholds ”)
6. Clock (“ Clock ”)

Visible only if the clock chip is provided.

7. Preventive action (“ Prev. Action ”)

MENU 1 (DOSES)

Strong coffee doses

Drink selection for relative dose quantity programming.
1. Strong coffee (“Strong coffee”)
2. Two strong coffees (“2 strong coffees ”)
3. Standard espresso coffee (“ Standard esp. coffee”)
4. Two standard espresso coffees (“2 standard espr. coffees”)
5. Milk (“ Milk ”)
6. “American coffee” (“American coffee”)

MENU 1.1 (STRONG COFFEE)

Coffee selec. S1

--- cc Sets water dose for strong coffee, 14 to 100 cc. S1 fixed. (*)

MENU 1.2 (TWO STRONG COFFEES)

Coffee selec. S2

--- cc Sets water dose for each one of the strong coffees, 14 to 100 cc. S2 fixed. (*)

MENU 1.3 (STANDARD ESPRESSO COFFEE)

Coffee selec. S3

--- cc Sets water dose for standard espresso coffee, 14 to 100 cc. S3 fixed. (*)

MENU 1.4 (two STANDARD ESPRESSO COFFEES)

Coffee selec. S4

--- cc Sets water dose for each one of the two standard espresso coffees, 14 to 100 cc. S4 fixed. (*)

MENU 1.5 (MILK)

Milk A S5

--.- s Sets the cappuccino electro valve first phase opening time, 00.0 to 99.9 sec. S5 fixed.

Milk B S5

--.- s Sets the cappuccino electro valve’s second phase opening time, 00.0 to 99.9 sec. S5 fixed.

MENU 1.6 (“AMERICAN COFFEE”)

Coffee selec. S6

--- cc Sets water dose for "American coffee", from 14 to 100 cc. S6 fixed. (*)

Add. water S6

--.- s Sets additional water dose for “American coffee”, from 00.0 to 99.9 cc. S6 fixed.

Water first S6

-- Enables dispensing of additional water before the coffee dose, No or Yes. S6 fixed.

MENU 2 (SALES)

Unresett.total selections
- Displays the unresettable total selections counter. The maximum value is 16777251.

Total selections
- Displays the resettable total selections counter. The maximum value is 16777251.

Strong coff.selections
- Displays the resettable, strong coffee selections counter. The maximum value is 65535.

2Strong coff.selections
- Displays the resettable, two strong coffees selections counter. The maximum value is 65535.

Standard espr.coff.selections
- Displays the resettable, standard espresso coffee selections counter. The maximum value is 65535.

2Standard espr.coff.selections
- Displays the resettable, two standard espresso coffees selections counter. The maximum value is 65535.

Milk selections
- Displays the resettable, milk selections counter. The maximum value is 65535.

Amer. Coffee selections
- Displays the resettable, “American coffee” selections counter. The maximum value is 65535.

Dekaf. coff. selections
- Displays the resettable, decaffeinated coffee selections counter. The maximum value is 65535.

Standard deka.coff.selections
- Displays the resettable, standard decaffeinated coffee selections counter. The maximum value is 65535.

American deka.coff.selections
- Displays the resettable, American decaffeinated coffee selections counter. The maximum value is 65535.

Code
---- Password entry code is requested to access the audit data cancellation procedure. The maximum value is 9999.

Replace code?
-- Asks for confirmation of possible replacement of the password entry code required to access the audit data cancellation procedure. The entry data allowed here is: NO or YES.

Code
---- Set a new password entry code for access to the audit data cancellation procedure. The entry data allowed here is: 0 to 9999 Visible only if YES is set under the “Replace Code” data field.

Set to zero?
-- Confirm only if the audit data must be reset to zero. The entry data allowed here is: NO or YES.

The counters undergo an incremental update at the end of the dispensing cycle.

The audit data are stored both on the (red) Audit key and on the VSPS. A .txt format file is generated via the relative windows programs. It is formatted as follows:

AUDIT File:

Machine number	000000	
Lease number	00000	
Second to last discharge	00/00/00	00:00
Last discharge	00/00/00	00:00

Description	Unresettable	Resettable
Total selections	0	0
Strong coffee selections	0	0
Two strong coffee selections	0	0
Standard espresso coffee selections	0	0
Two standard espresso coffee selections	0	0
Milk selections	0	0
“American coffee” selections	0	0
Decaffeinated strong coffee selections	0	0
Decaffeinated standard espresso coffee selections	0	0
Decaffeinated “American coffee” selections	0	0

The second to last discharge data field is set only if the clock chip was implemented for the last discharge.
The last discharge data field is set only if the clock chip is provided.

MENU 3 (OPTIONS)

Language
English Sets V.M. language. It is possible to set either [Italian, French, English, Spanish, German, Portuguese,]. The message displayed in line 2 is message no. 0 in the message file.

Coffe disp. time
--.- *s* Sets the reference time for espresso coffee dispensing. The entry data allowed here is: 0.0 to 35.0 s.

Independent pump
-- Enables independent pump management. The entry data allowed here is: NO or YES.

Machine number
------- Sets the machine serial number The entry data allowed here is: 0 to 9999999

Lease number
----- Sets the V.M. lease number The entry data allowed here is: 0÷65535.

Preset Washing
-- Enables machine cleaning cycle time settings, based on the time ranges programmed in the menu Clock →Wash cycles (6.2). The entry data allowed here is: NO or YES.

Wash cycle
-- Enables machine wash cycle. The entry data allowed here is: NO or YES.

Probe Sensitivity
--- Sets level threshold probe sensitivity. The entry data allowed here is: 20 to 200 (where 20 is max sens. - 200 is min. sens.)

Default data?
-- Confirm whether default data is to be reinstated. The default data is the data specified in this manual. Furthermore, the resettable sales data is set back to zero. The entry data allowed here is: NO or YES.

MENU 4 (TIMING AND THRESHOLDS)

Grinder threshold
--.- Grinder current read-off threshold. The entry data allowed here is: 05.0 to 18.0

Grinder timeout
--.- *s* Sets grinder timeout. The entry data allowed here is: 0.0 to 25.5 s.

Group timeout
--.- *s* Sets group timeout. The entry data allowed here is: 0.0 to 10.0 s.

Group speed
-- Sets group speed expressed in percentage. The entry data allowed here is: 20 to 100

Esp. pump timeout
--- *s* Sets the espresso pump timeout. The entry data allowed here is: 0 to 250 s.

Water load timeout

--- *s* Sets the water load management timeout.
The entry data allowed here is: 0 to 250 s.

Boiler load timeout

--- *s* Sets the heater load management timeout.
The entry data allowed here is: 0 to 250 s.

Ind. pump timeout

-- *s* Sets the independent pump timeout.
The entry data allowed here is: 0 to 60 s.

Cleaning cycle time

--.- *s* Sets the cleaning cycle time.
The entry data allowed here is: 0.0 to 25.5 s.

MENU 5 (CLOCK)

Clock

Sets hours/minutes

The sub menus available for selection are as follows:

1. Set data (“ Set data ”)
2. Set hours and minutes (“ Set hrs/minutes ”)
3. Wash cycles (“ Washing ”)
4. Switch off (“ Switch off ”)

MENU 5.1 (SET DATE)

Set date

--/--/-- Changes the clock chip date.
The format provided is: dd/mm/yy .
The days go from 1 to 31, the months from 1 to 12 and the years from 0 to 99.

MENU 5.2 (SET HOURS AND MINUTES)

Sets hours/minutes

--:-- Changes the clock chip time.
The format provided is: hours:minutes.
The hours go from 0 to 23 and the minutes go from 0 to 59.

MENU 5.3 (CLEANING)

Cleaning “ x ”

--:-- Sets the “ x ” cleaning cycle time.
Where “x” = 1 or 2.
The format provided is: hours:minutes.
The hours go from 0 to 23 and the minutes go from 0 to 59.

MENU 5.4 (SWITCH OFF)

Stop 1

--:-- Sets machine Stop 1 or Stop 2.
The format provided is: hours:minutes.
The hours go from 0 to 23 and the minutes go from 0 to 59.

Start 1

--:-- Sets switch-on time “ x ”. Where × = 1 or 2
The format provided is: hours:minutes.
The hours go from 0 to 23 and the minutes go from 0 to 59.

Stop 2

--:-- Sets machine Stop 2 ×. Where “×” = 1 or 2.
The format provided is: hours:minutes.
The hours go from 0 to 23 and the minutes go from 0 to 59.

Start 2

--:-- Sets the time for switch-on “ × ”.
Where “×” = 1 or 2
The format provided is: hours:minutes.
The hours go from 0 to 23 and the minutes go from 0 to 59.

MENU 6 (PREVENTIVE ACTION)

Coffee grounds

-- Displays coffee grounds decounter value.

Water treatment unit

------- Sets the water treatment unit decounter value.
The entry data allowed here is: 0 to 9999999

Coffee grinder

------- Sets the coffee grinder decounter value.
The entry data allowed here is: 0 to 9999999

Coffee filters

------- Sets the coffee filter decounter value.
The entry data allowed here is: 0 to 9999999

Electro valves

------- Sets the electro valve decounter value.
The entry data allowed here is: 0 to 9999999

Seals

------- Sets the filter seals decounter value.
The entry data allowed here is: 0 to 9999999

Boiler

------- Sets the boiler decounter value.
The entry data allowed here is: 0 to 9999999

HACCP

------- Sets the HACCP sanitisation decounter value.
The entry data allowed here is: 0 to 9999999

Coffee grounds recharge

------- Sets the coffee grounds recharge limit value.
The entry data allowed here is: 0 to 50

8.0 SOFTWARE INSTRUCTIONS

8.1 FUNCTION MANAGEMENT

MANAGEMENT OF RESET AT MACHINE SWITCH-ON

Upon machine switch-on, there is a system reset that consists in activating the group so that it goes into its rest position.

DATA DISPLAY
During the system reset at machine switch-on, the following messages come up on display:
Diagnosis
Reset

MANAGEMENT OF MACHINE STAND-BYS

DATA DISPLAY
During the standard machine stand-by mode, the following messages come up on display:
Ready

AIR BREAK LOAD MANAGEMENT

Inputs and outputs involved:

Inputs	Outputs
Tray micro: INPUT2:5	Water entry EV: OUT3:1
Water empty: INPUT2:4	

Management is executed if the independent pump activation mode that can be programmed with the options menu, is set to NO.
Reading off the tray micro input at a frequency equal to the read-off time determines whether the water entry electro valve is on or off.
During water entry electro valve activation, the water load timeout is checked.
Once the water load timeout has expired, the water entry electro valve is turned off even if the tray micro input still appears to be open and the water load attempt timeout amounting to 15 minutes has been initialised.
The management mode also manages the water empty alarm (E02 water empty) that goes off whenever the water empty input stays open continuously for the overall water empty timeout. Said alarm is an auto-reset alarm, therefore if the water empty input is detected as being continuously closed for the overall water empty timeout, the alarm is reset. Another way in which to reset the alarm is to use the reset function in the maintenance mode.
Parameters:
1. Read-off time: temporary value 2.0 s
2. Water load timeout: to be programmed in the timing and thresholds menu
3. Water empty timeout: fixed value 2.0 s
4. Water load attempt timeout: fixed value 15 minutes

INDEPENDENT PUMP MANAGEMENT

Inputs and outputs involved:

Inputs	Outputs
Tray micro: INPUT2:5	Water entry EV: OUT3:1
Water empty: INPUT2:4	

Management is executed if the independent pump activation mode that can be programmed with the options menu, is set to YES.
Reading off the tray micro input at a frequency equal to the read-off time determines whether the water pump is on or off.
During independent pump activation, the independent pump timeout is checked. Upon said timeout expiry, the independent pump is switched off.
The management mode also manages the water empty alarm (E02 water empty) that goes off whenever the water empty input stays open continuously for the overall water timeout. Said alarm is an auto-reset alarm, therefore if the water empty input is detected as being continuously closed for the overall water empty timeout, the alarm is reset. Another way in which to reset the alarm is to use the reset function in the maintenance mode.
Parameters:
5. Read-off time: temporary value 2.0 s
6. Independent pump timeout: to be programmed in the timing and thresholds menu
7. Water empty timeout: fixed value 2.0 s
8. Water load attempt timeout: fixed value 15 minutes

CLEANING CYCLE MANAGEMENT

Inputs and outputs involved:

Inputs	Outputs
	Cappuccino making unit EV: OUT3:3
	“American coffee” EV: OUT3:4
	Group motor reducer: OUT3:6

PROCEDURE ACTIVATION

The machine cleaning procedure can be activated in the following ways:
- If the wash cycle is enabled (Options Menu) the procedure is activated 30 minutes subsequent to machine start and subsequently thereafter at 180 minutes from the end of the last dispensing or wash cycle.
- If the time-set wash cycle is enabled (Options Menu) the procedure is activated at the set time (Cleaning Menu) provided that there are no dispensing or maintenance operations underway.
- If the appropriate control key is pressed during maintenance operations.

PROCEDURE

The cappuccino making unit electro valve and the “American coffee” electro valve are activated in sequence for a time that is set and entered under the “wash cycle time” parameter in the Timing and thresholds menu.
Thereafter, the group motor reducer is activated for one complete rotation.

TROUBLE SHOOTING

- The group timeout expire (Timing and thresholds menu), the “E61 Group” system-stored signal is generated and the wash cycle is brought to an end.

BOILER LOAD MANAGEMENT

Inputs and outputs involved:

Inputs	Outputs
Threshold probe: INPUT1:1	Boiler load pump OUT2:2

Management is not taken into consideration if the water empty alarm is present.
Provided above condition is not present, the boiler load pump swill be managed by the level threshold probe. Reading off the input with a frequency equal to the read-off time, determines whether the boiler load pump is on or off.
The management mode also manages the boiler load alarm (E21 Boiler load) that goes off whenever the threshold probe input stays open continuously for the overall boiler load timeout. This is a stored alarm, therefore to reset it, it is necessary to use the reset function in the maintenance mode.

Parameters:
9. Read-off time: temporary value 2.0 s
10. Boiler load timeout: to be programmed in the timing and thresholds menu

RESISTANCE UNIT MANAGEMENT

Inputs and outputs involved:

Inputs	Outputs
Pressure switch: INPUT2:9	Resistance: OUT1:1
Threshold probe: INPUT1:1	

Management is not taken into consideration if either the boiler load alarm (E21) or the pressure switch alarm (E20) is present.
The resistance is switched off independently to the pressure switch and the pressure switch timeout is re-initialised if the level threshold probe stays low for the overall probe time.
This parameter must be programmable for testing. Once the time has been assessed by testing, it will stay fixed. The value range must go from 0 to 255 s.
Provided above condition is not present, the resistance will be managed by the pressure switch, reading off the pressure switch input at a frequency equal to the read-off time determines whether the resistance is on or off. The management mode also manages the pressure switch alarm (E20 pressure switch) that goes off whenever the pressure switch input stays open continuously for the overall pressure switch timeout. The pressure switch timeout counter starts from when the resistance is switched on. This is a stored alarm, therefore to reset it, it is necessary to use the reset function in the maintenance mode.

Parameters:
11. Probe time: temporary value 2.0 s
12. Read-off time: temporary value 2.0 s
13. Pressure switch timeout: fixed value 15 minutes

COFFEE ESPRESSO MANAGEMENT

This function will work as follows: during standard dispenser operations, whenever the resistance output (OUT1:1) stays on continuously for 5 and a half minutes (i.e. 330 sec), the dispenser disable function will kick in and last for 40 minutes.

DATA DISPLAY
During this phase, the following messages will come up on display:

Please wait
Warm-up

DECAFFEINATED COFFEE PRE-SELECTION

The decaf coffee pre-selection option is applicable to all strong coffee, standard espresso coffee and “American coffee” selections.

Two options are available for decaf coffees:
– Open unit door, insert the decaf product, close the unit door. After said operation, “Decaffeinated” will come up on display and only then will it be possible to press keys 1, 2, 3.
If not changed, the Decaffeinated mode will stay on display infinitely. To exit the decaffeinated mode, the operator must press the Stop pushbutton, or press the decaffeinated pushbutton once again.

The machine Ready message will come up on display. Pressing any one of the selection keys (1, 2, 3, 5, 6), the group will, prior to dispensing the drink, run a complete cycle. If for any reason after the above procedure (i.e. opening and then closing the dispenser door) the operator were to press the stop key, the “Decaffeinated” coffee pre-selection option will fail and the group will run a complete cycle.
Should the door not be closed back up again or should it for any reason stay open, the following messages will come up on display:
Close the door
Decaffeinated
– Press the decaf key (Decaffeinated), open unit door, insert the decaf product, close the unit door. Upon closing the door, it is expected that one of the selection keys allowed, is pressed. The Decaffeinated mode message will stay on display infinitely. Said mode is reset back to standard only if the decaffeinated pushbutton or the Stop pushbutton is pressed once again. Once the machine decaf mode selection has been removed, the machine Ready message will come up on display. Pressing any one of the selection keys (1, 2, 3, 5, 6), the group will, prior to dispensing the drink, run a complete cycle.

The above procedure can be interrupted in the following ways:

- Press the decaffeinated mode pre-selection key (Key 4) a second time (if the group does not detect door opening and closing the group will not run a complete cycle at subsequent selection)
- Press the dispensing stop key (Key 8). (if the group does not detect door opening and closing, the group will not run a complete cycle at subsequent selection)
- Press a non-allowed selection key. In this case, the decaf preselection function will not be reset back to standard. The non-consented keys will not have any effect.

DATA DISPLAY
Phase A

Ready
Decaffeinated

STRONG AND STANDARD ESPRESSO COFFEE (DECAF) DISPENSING

If the selection is not for a decaf coffee, pressing key 1 or 2 will activate the grinder until the coffee dose unit is filled. Subsequently, a 1 second waiting interval must go by, whereupon the coffee release function is activated for 1 second. Another 1 second interval must go by prior to activating the group, until the group micro input switches over.
Once the group has reached its dispensing position, the overall hot drink selection management is activated. Once management functions are complete, a 1 second fixed time must go by for group activation, until the group micro input switches over.
Once the group has gone back into its rest position, the dispensing cycle is over.

TROUBLE SHOOTING

- The grinder timeout expires (Timing and thresholds menu), the “E60 Grinder” system-stored signal is generated and the dispensing cycle is brought to an end.
- The coffee doser unit input has not reverted subsequent to doser magnet activation. The “E63 Doser” system-stored signal is generated and the dispensing cycle is brought to an end.
- The group timeout expires (Timing and thresholds menu), the “E61 Group” system-stored signal is generated and the dispensing cycle is brought to an end.
- The express pump timeout expires (Timing and thresholds menu), the dose of water that is dispensed is checked and if it is less or equal to 10 cc, the “E62 Esp. Pump” system-stored signal is generated and the dispensing cycle is brought to an end.

This error is managed in the overall hot drink selection management mode.

DATA DISPLAY
During the dispensing cycle, the following messages come up on display:

Please wait
Dispensing

DOUBLE STRONG AND STANDARD ESPRESSO COFFEE DISPENSING

Pressing key 5 or 6 will activate the grinder until the coffee doser unit is filled up.
Subsequently, a 1 second waiting interval must go by, whereupon the coffee release function is activated for 1 second. Another 1 second interval must go by prior to activating the group, until the group micro input switches over. One second after group activation, the grinder will start up a second time until the coffee doser unit has filled up. Once the group has reached its dispensing position, the overall hot drink selection management is activated. Once management functions are complete, a 1 second fixed time must go by for group activation, until the group micro input switches over. Once the group has reached its rest position, a 1 second waiting interval must go by, whereupon the coffee release function is activated for 1 second. Another 1 second interval must go by prior to activating the group, until the group micro input switches over.
Once the group has reached its dispensing position, the overall hot drink selection management is activated. Once management functions are complete, a 1 second fixed time must go by for group activation, until the group micro input switches over.
Once the group has gone back into its rest position, the dispensing cycle is over.

TROUBLE SHOOTING

- The grinder timeout expires (Timing and thresholds menu), the “E60 Grinder” system-stored signal is generated and the dispensing cycle is brought to an end.
- The coffee doser unit input has not reverted subsequent to doser magnet activation. The “E63 Doser” system-stored signal is generated and the dispensing cycle is brought to an end.
- The group timeout expire (Timing and thresholds menu), the “E61 Group” system-stored signal is generated and the dispensing cycle is brought to an end.
- The express pump timeout expires (Timing and thresholds menu), the dose of water that is dispensed is checked and if it is less or equal to 10 cc, the “E62 Esp. Pump” system-stored signal is generated and the dispensing cycle is brought to an end. This error is managed in the overall hot drink selection management mode.

DATA DISPLAY
During the dispensing cycle, the following messages come up on display:
Please wait
Dispensing

MILK DISPENSING

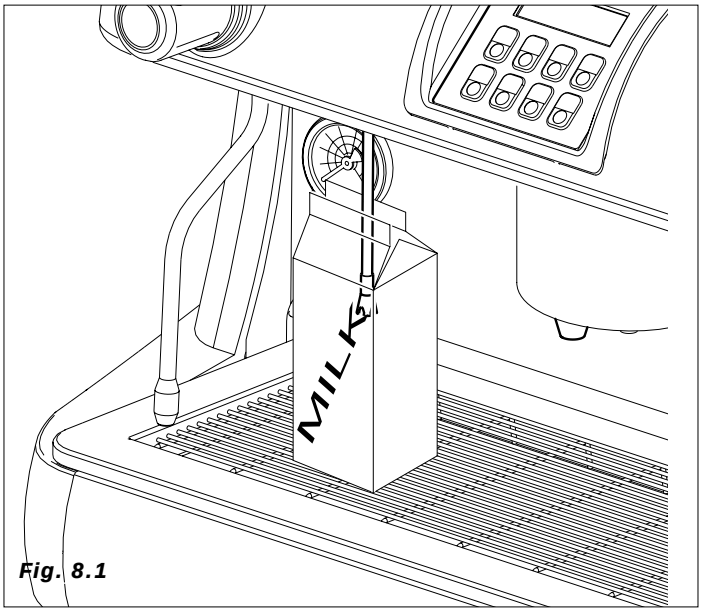


Fig. 8.1

Pressing key 7 will activate the milk electro valve output for time T1 as programmed in the timing and doses menu.
If during this time range key 7 is pressed once again, time T2 will be added onto time T1.
The dispensing of this drink can be simultaneous to the other selections.
Pressing the STOP key during the dispensing cycle will provide for immediate dispensing cycle interruption.

DATA DISPLAY
During the dispensing cycle, the following messages come up on display:
Please wait
Dispensing

(DECAF) “AMERICAN COFFEE” DISPENSING. ADDITIONAL WATER BEFORE COFFEE DOSE = NO

If the selection is not for a decaf coffee, pressing key 3 will activate the grinder until the coffee dose unit is filled. Subsequently, a 1 second waiting interval must go by, whereupon the coffee release function is activated for 1 second. Another 1 second interval must go by prior to activating the group, until the group micro input switches over.
Once the group has reached its dispensing position, the overall hot drink selection management is activated. Once management functions are complete, a 1 second fixed time must go by for group activation, until the group micro input switches over and the “American coffee” electro valve output is activated to dispense the dose as programmed.

Once the additional water dose as programmed by the “American coffee” electro valve has been dispensed and the group has gone back into its rest position, the dispensing cycle is over.

TROUBLE SHOOTING

- The grinder timeout expires (Timing and thresholds menu), the “E60 Grinder” system-stored signal is generated and the dispensing cycle is brought to an end.
- The coffee doser unit input has not reverted subsequent to doser magnet activation. The “E63 Doser” system-stored signal is generated and the dispensing cycle is brought to an end.
- The group timeout expire (Timing and thresholds menu), the “E61 Group” system-stored signal is generated and the dispensing cycle is brought to an end.
- The express pump timeout expires (Timing and thresholds menu), the dose of water that is dispensed is checked and if it is less or equal to 10 cc, the “E62 Esp. Pump” system-stored signal is generated and the dispensing cycle is brought to an end. This error is managed in the overall hot drink selection management mode.

DATA DISPLAY
During the dispensing cycle, the following messages come up on display:
Please wait
Dispensing

(DECAF) “AMERICAN COFFEE “ DISPENSING. ADDITIONAL WATER BEFORE COFFEE DOSE = YES

If the selection is not for a decaf coffee, pressing key 6 will activate the grinder until the coffee dose unit is filled and the “American coffee” electro valve output is activated.
Subsequently, a 1 second waiting interval must go by, whereupon the coffee release function is activated for 1 second. Another 1 second interval must go by prior to activating the group, until the group micro input switches over.
Once the group has reached its dispensing position and dispensing of the dose as programmed for the “American coffee” electro valve has come to an end, the overall hot drink selection management is activated. Once management functions are complete, a 1 second fixed time must go by for group activation, until the group micro input switches over.
Once the group has gone back into its rest position, the dispensing cycle is over.

TROUBLE SHOOTING

- The grinder timeout expires (Timing and thresholds menu), the “E60 Grinder” system-stored signal is generated and the dispensing cycle is brought to an end.
- The coffee doser unit input has not reverted subsequent to doser magnet activation. The “E63 Doser” system-stored signal is generated and the dispensing cycle is brought to an end.
- The group timeout expire (Timing and thresholds menu), the “E61 Group” system-stored signal is generated and the dispensing cycle is brought to an end.

The express pump timeout expires (Timing and thresholds menu), the dose of water that is dispensed is checked and if it is less or equal to 10 cc, the “E62 Esp. Pump” system-stored signal is generated and the dispensing cycle is brought to an end. This error is managed in the overall hot drink selection management mode.

DATA DISPLAY
During the dispensing cycle, the following messages come up on display:

Please wait
Dispensing

DISPENSING STOP KEY MANAGEMENT.

If pressed during the dispensing cycle, the STOP key may have two effects, depending on whether the system is in phase A or phase B. If in phase A, the dispensing cycle is brought to an end and the selections counter is not increased. If in phase B, the dispensing cycle is brought to an end and the selections counter is not increased, the group is activated for one complete rotation.

COFFEE GROUNDS DECOUNTER MANAGEMENT

Inputs and outputs involved:

Inputs	*Outputs*
Coffee grounds door: INPUT1:11	

Each dispensing cycle group rotation, decreases the counter that is displayed in the preventive action menu (7). When the decounter is down to zero, the dispensing cycle underway is brought to an end, then the system triggers off the detection report and the following messages will come up on display:

Empty
Coffee grounds

whilst the standard machine functions are inhibited by the machine.

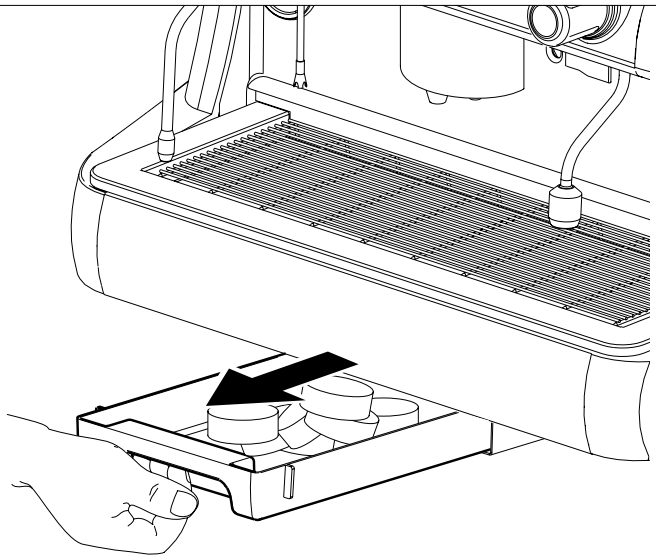


Fig. 8.2

If the coffee grounds door micro stays open continuously for 5 sec, the decounter is charged back up again.
Once the decounter is charged up and after the door micro has been closed back up again, check once again to ensure that the decounter has been charged back up again.
When the coffee grounds tray is closed it can be asserted that the coffee grounds door is at a low logic level.

MOTORISED GRINDER-DOSER UNIT MANAGEMENT

Inputs and outputs involved:

Inputs	*Outputs*
	Clockwise rotation: OUT3:7
	Anticlockwise rotation: OUT3:8

This management mode is devised for the following drinks:

- Short (condensed) coffee dose (Key 1)

Setting of the coffee dispensing time, with a ±3 seconds tolerance time. The motor activation time for grinder-doser unit adjustment must be 0.4 seconds for finer grinding and 0.9 seconds for coarser grinding.
The first two coffee servings straight after the vending machine has been switched on or after grinder-doser unit adjustment operations, must never be taken into consideration.
The grinder-doser unit adjustment operations should be done at the end of the coffee dispensing cycle, whilst the group goes back into its rest position.

Example with dispensing time set at 18 seconds
Switch on the vending machine: set dispensing time is 18”. The first two coffee servings dispensed by the machine and the two coffee servings dispensed straight after the adjustment operations cannot be taken into consideration.
If in the 3 subsequent selections the coffee dispensing time does not reach 18” (±3” if the coffee is less than 60 cc and ±4” if the coffee is comprised between 60 and 80 cc), the motor reducer will be activated back up again for 0.4 sec in a clockwise direction.
If in the 3 subsequent selections the coffee dispensing time goes over 18” (±3” if the coffee is less than 60 cc and ±4” if the coffee is comprised between 60 and 80 cc), the motor reducer will be activated for 0.9 sec in an anticlockwise direction.
The above process shall have to be repeated until the set time is reached.
When the coffee dispensing time amounts to 18” (or at least lies within the tolerance), the motor reducer will no longer need to be activated.
The program will consistently read-off the dispensing cycle duration based on the coffee electro valve opening (OUT3:2) and, in the event that the last 3 selections are found to be less than or more than the set dispensing time plus a ±3” tolerance if the coffee is less than 60 cc and ±4” tolerance if the coffee is comprised between 60 and 80 cc, (with finer grinding) to increase the dispensing time and for 0.9 sec in an anticlockwise direction (with coarser grinding) so as to decrease the dispensing time.
The programmable, coffee dispensing time range will be [2.9 to 35.0 s] and can be set via the options menu.

Selection no.	*Dispensingtime*	*Result*
1 2	11” 13”	Dispensed straight after vending machine switch-on. Not considered.
3 4	12” 13”	Dispensed at less than the set time
The motor reducer is activated clockwise for 0.4 sec(with finer grinding)		
5 6	13” 14”	Dispensed after adjustment. Not considered.
7	15”	Only one is out of time limits. Not considered.
8	16.5”	OK
9	16”	OK
10	16.5”	OK
11	17”	OK
12	21”	Only one is out of time limits. Not considered.
13	18”	OK
14	19”	OK
15	20”	OK
16 17	21” 22”	Two consecutive selections out of time limits.
The motor reducer is activated anticlockwise for 0.9 sec(with coarser grinding)		
18 19	22” 21”	Dispensed after adjustment. Not considered.
20	19”	OK
21	19”	OK
22	18.5”	OK
23	19”	OK

AUTOMATIC DRINK-STOP MANAGEMENT

This management mode is devised for the following drinks:

- Short (condensed) coffee dose

In the event that the real dispensing time is in excess of the programmed dispensing time by more than 6 seconds, the drink dispensing cycle will be interrupted via the STOP function. Said dispensing cycle will anyway be counted for grinding adjustment purposes.

FIRST-TIME INSTALLATION MANAGEMENT

Inputs and outputs involved:

Inputs	Outputs
Flow meter: INPUT2:2	Pump: OUT2:1
Tray micro: INPUT2:5	Coffee electro valve: OUT3:2
Water empty: INPUT2:4	Resistance: OUT1:1
Pressure switch: INPUT2:9	Boiler load pump OUT2:2
Threshold probe: INPUT1:1	

The procedure is activated by keeping key 8 pressed in while the machine powers on, until you hear the beep.
When the machine powers on, the group is reset and the boiler load is managed.
With the tray micro normally closed, once the boiler load and the group reset functions have ended, the espresso pump and coffee electro valve outputs are activated to dispense a fixed dose amounting to 200 cc (VM). In this phase it is necessary to check the espresso pump timeout and if it expires, set-adjust the relative error.
Once the VM dose is served up, the resistance management is activated to complete the first installation.

TROUBLE SHOOTING

- The group timeout expires (Timing and thresholds menu), the “E61 Group” system-stored signal is generated and the dispensing cycle is brought to an end.
- The espresso pump timeout expires (Timing and thresholds menu), the “E62 Esp. pump” system-stored signal is generated and the management cycle is brought to an end.
- The pressure switch timeout expires (fixed), the “E20 pressure switch” system-stored signal is generated and the pressure switch timeout count starts from resistance switch-on. This is a stored alarm, therefore to reset it, it is necessary to use the reset function in the maintenance mode.

DATA DISPLAY
Whilst in phase A and once the group reset has ended, the following messages will come up on display:

Water load

Whilst in phase B, the following messages come up on display:

Please wait
Warm-up

CALIBRATION DATA KEY MANAGEMENT

The procedure consists in entering the calibration data key, (light blue) into the appropriate connector when the machine is OFF.
The machine must be switched back on again whereupon the following non-amendable messages will come up on display:

T1 KEY -> VMC
T5 VMC -> KEY

Pressing key 1 will store the key data onto the VMC.
Pressing key 5 will store the VMC data onto the key.

During this procedure, the following non-amendable messages will come up on display:

DOWNLOAD DATA
WAITING

once the download procedure has been activated, it can be brought to an end in two ways:

1. correctly, with the following message coming up on display
“***** OK *****”

2. incorrectly, with the following message coming up on display
“*** ERROR ****”

At this point, power OFF the machine and remove the key.

The data that is managed is as follows:

- Strong coffee calibrations (menu 1.1)
- Two strong coffee calibrations (menu 1.2)
- Standard espresso coffee calibrations (menu 1.3)
- Two standard espresso coffee calibrations (menu 1.4)
- Milk calibrations (menù 1.5)
- “American coffee” coffee calibrations (menu 1.6)
- Temperature (menu 3)
- Options (menu 4)
- Timing and thresholds (menu 5)
- Cleaning (menu 6.3)
- Preventive action (menu 7)
- Hot drink algorithm data (Programmable via the WinSofia program)

AUDIT DATA KEY MANAGEMENT

The procedure consists in entering the audit data key (red), into the appropriate connector when the machine is OFF.
The machine must be switched back on again whereupon the following non-amendable messages will come up on display:

AUDIT KEY R xx
T1 VMC -> KEY

where xx stands for the available record. If the key is in flat position, instead of the available record number, the display read: FULL.
When the audit data key management is activated it is possible to reset the key by pressing key 8. Once pressed, the record indicator goes back to 1 and all the data previously stored is erased.Pressing key 1 will store the data onto the key, on the specified record.

During this procedure, the following non-amendable messages will come up on display:

DOWNLOAD AUDIT
WAITING xx

where xx stands for download progression.

Once the download procedure has been activated, it can be brought to an end in two ways:

3. correctly, with the following message coming up on display
“***** OK *****”

4. incorrectly, with the following message coming up on display
“*** ERROR ****”

At this point, power OFF the machine and remove the key.

VSPS MANAGEMENT

The following commands are managed by the machine:
1. Audit data read-off. The sales data and the parameters as described under the Menu 2 section (Sales) are stored into the hand-held device. Said data will be managed by the VSPS windows program. The operation procedure is described in the VSPS instruction manual.

2. Read-off and writing of the relative messages. All the language messages are stored into the hand-held unit. Said data will be managed by the VSPS windows program and by the relative alteration and amendment programs. The operation procedure is described in the VSPS instruction manual.
3. Read-off and writing of the relative calibrations. All the calibration records are stored into the hand-held unit. Said data will be managed by the VSPS windows program and by the relative alteration and amendment programs. The operation procedure is described in the VSPS instruction manual. The data that is managed is as specified under the "Calibration data key management" section.

BOILER EMPTYING MANAGEMENT

Inputs and outputs involved:

Inputs	***Outputs***
Group micro INPUT2:8	Group motor OUT3:6
Pushbutton 1	Coffee electro valve: OUT3:2

The procedure is activated by keeping key 1 pressed in while the machine powers on, until you hear the beep.
Upon switch-on, once the T1 interval has gone by, the group is activated and travels into the dispensing position.
The coffee electro valve is thus activated for a fixed time interval T2 (15 seconds). Once said time interval ha gone by, the group will go back into rest position. The VM gives off another beep and the display will display the "Switch off" message.

TROUBLE SHOOTING

- The group timeout expire (Timing and thresholds menu), the "E61 Group" system-stored signal is generated and the dispensing cycle is brought to an end.

DATA DISPLAY

In phase A

Empty *fixed message.*
Boiler *fixed message.*

In phase B

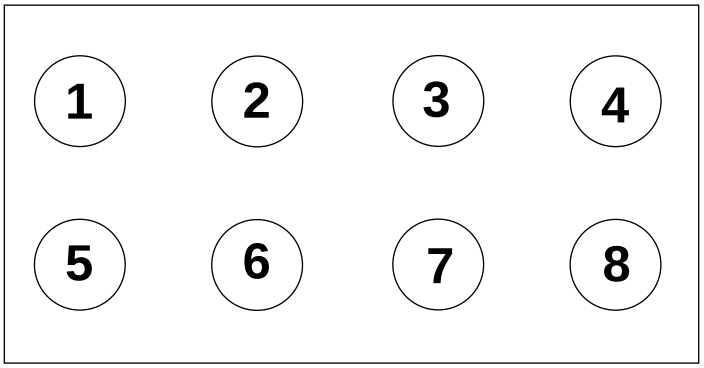
Switch off *fixed message.*

9.0 MAINTENANCE

9.1 SOFTWARE FUNCTION MANAGEMENT

KEY FUNCTIONS

The maintenance menu is accessed by keeping pushbutton 4 pressed in for 4 seconds.



The pushbuttons provided are meant for:

Pushbutton **1** Alarm resets
Pushbutton **2** Scrolling through alarms and warnings
Pushbutton **3** Complete test run
Pushbutton **4** Group rotation
Pushbutton **5** Cleaning
Pushbutton **6** Selection display
Pushbutton **7** Activate grinder opening for 5 sec
Pushbutton **8** Exit

When in the maintenance mode, the following messages come up on display:

Maintenance
In the event that any alarms have tripped off or there are any warnings, the relative alarm message or signal is displayed in line two.

ALARM RESET

Upon pressing the key all alarms and warnings are reset, then the coffee group reset procedure is activated (please see the group rotation function).
The factory data are restored only if the Eeprom alarm is triggered off as well.

DATA DISPLAY
During the system reset, the following message comes up on display in line 2:

Reset

ALARMS AND WARNINGS SCROLL-DOWN

This function can be implemented if there are alarm or signal messages present. If there are, pressing the relative scroll-down key it is possible to scroll through the list of alarms and warnings present and displayed in line 2.

COMPLETE TEST RUN

This function allows the operator to run test selections of the possible drinks available. During the test run servings, the preventive action menu decounters are managed whilst the sales menu counters will not be increased.
If the complete test run mode is accessed and you wish to exit without entering any test selections, simply press the STOP pushbutton.

DATA DISPLAY
The following message comes up on display in line 2:

Complete test run

GROUP ROTATION

The coffee group reset procedure consisting in activating the group exit function for a complete rotation run, is activated.

DATA DISPLAY
During group rotation, the following message comes up on display in line 2:

Reset

CLEANING

The wash procedure is activated (please consult the washing/cleaning management paragraph under the operation section).

DATA DISPLAY
During the wash cycle, the following message comes up on display in line 2:

Cleaning

SELECTION DISPLAY

The selection counter display procedure is activated. Below is a list of the selection counters that are displayed.
Pressing key 6 will scroll through the counters whilst pressing key 8 will exit the selection display mode.

DATA DISPLAY
The two line description on the display will have the following meanings:

Unresett.total selections
- Displays the unresettable total selections counter.

Total selections
- Displays the resettable total selections counter.

Strong coff.selections
- Displays the resettable, strong coffee selections counter.

2 Strong coff.selections
- Displays the resettable, two strong coffees selections counter.

Standard espr.coff.selections
- Displays the resettable, standard espresso coffee selections counter.

2Standard espr.coff.selections
- Displays the resettable, two standard espresso coffees selections counter.

Milk selections
- Displays the resettable, cappuccino selections counter.

Amer. Coffee selections
- Displays the resettable, “American coffee” selections counter.

Strong Dekaf. coff. selections
- Displays the resettable, decaffeinated strong coffee selections counter.

Standard deka.coff.selections
- Displays the resettable, standard decaffeinated coffee selections counter.

American deka.coff.selections
- Displays the resettable, American decaffeinated coffee selections counter.

Unless otherwise specified, all maintenance operations must be carried out when the machine is totally powered down to OFF, it has cooled down and the mains socket is unplugged.
Use of metal, abrasive tools and solvents is not recommended for machine cleaning operations: they could all cause damages.
Where indicated, use specific detergents for coffee machines that are available on sale in the specialised technical service centres.

9.2 Daily maintenance

For cleaning operations use cloths or sponges that will not release fibres or threads.

- Clean the bodywork accurately and, on the stainless stele parts, rub in the direction of the satin finish.
- Clean the steam and the hot water drawing spouts. Check to see that the spout diffuser nozzles are not clogged or partially clogged with crusts and residues. If a crust removal operation is necessary, be very careful not to deform or damage the relative sprayer.

9.2.1 Cleaning the collection tray

- Remove the cup carrier grid from the tray and clean if necessary.
- Remove the discharge tray and clean it to remove any possible encrustations and/or coffee grounds residues.

9.3 Periodic maintenance tasks

9.3.1 Regeneration of the water treatment units

For the regeneration of the water treatment units, please consult the relative user’s manual and follow the instructions therein.

9.4 Access to the internal machine parts

Remove screws 1 (Fig. 8.3) and close the grinder coffee container lid.

Lift and move the coffee container (Fig. 8.4).

Remove screw 2 (Fig. 8.5) and lift the lid (1).

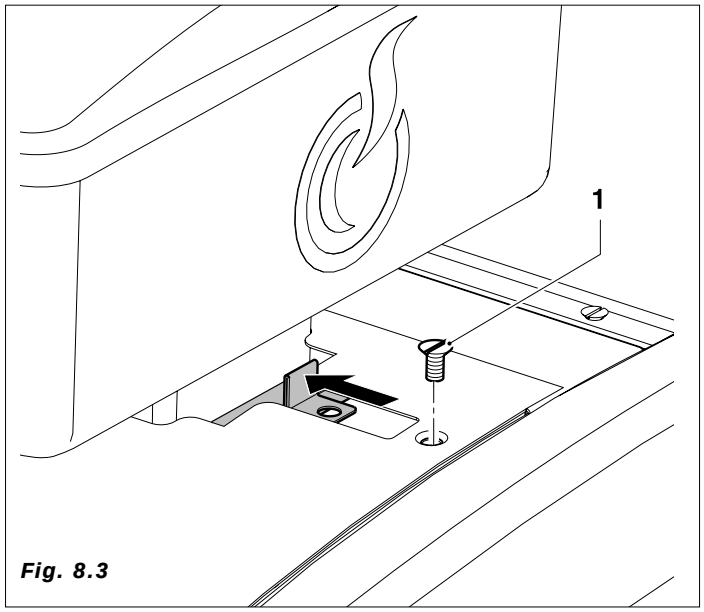


Fig. 8.3

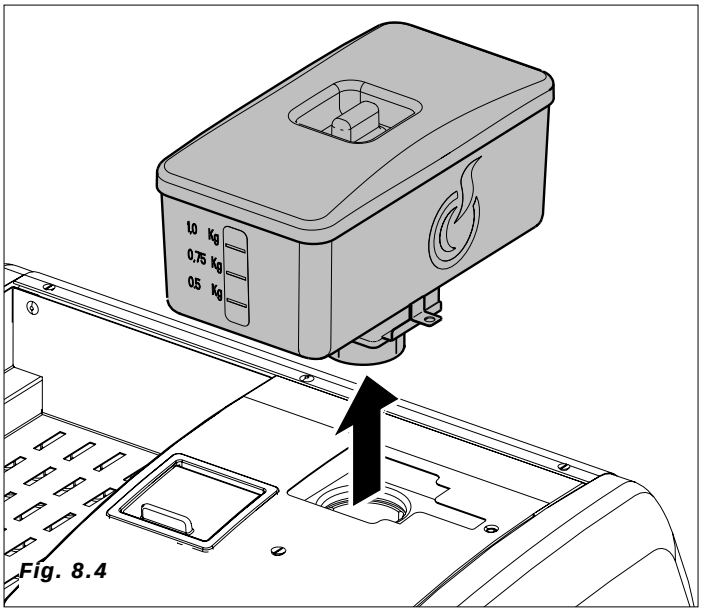


Fig. 8.4

1. Close the water mains supply tap (Fig. 8.6).
2. Detach the tube
3. Detach the electric connector
4. Once the grinder group/coffee group has been released, lift it completely.

Follow the above steps backwards to reassemble the groups back on again.

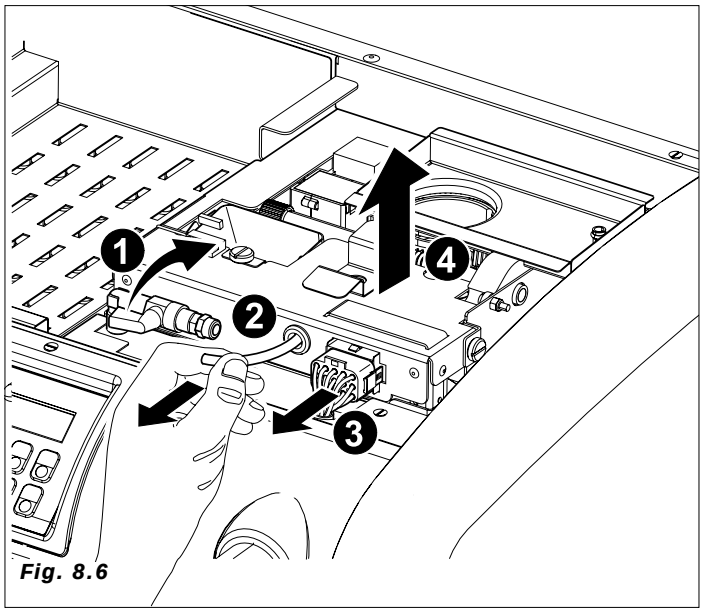


Fig. 8.6

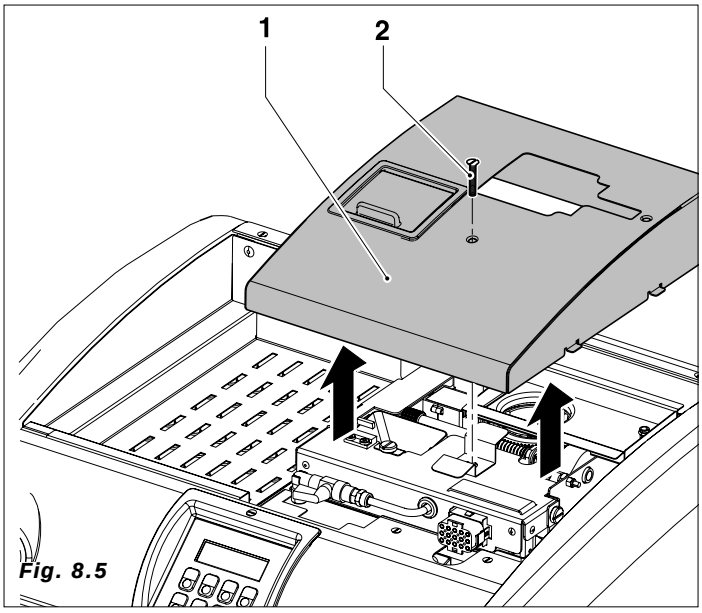


Fig. 8.5

10. PUTTING THE MACHINE OUT OF SERVICE

10.1 Putting the machine out of service temporarily

- Carry out all the cleaning and maintenance operations.
- Disconnect and wrap up the power supply cable.
- Disconnect the water supply tube.
- Cover the machine and store it in a dry place, not exposed to bad weather and with exclusive access.

For the conduction of the machine disconnection operations from the utility supply mains, please contact qualified personnel.

10.2 Putting the machine out of service definitely

- Disconnect and wrap up the power supply cable.
- Disconnect the water supply tube.
- Cut off the supply cable, pack up the machine and deliver it to personnel in charge of specifically certified waste recycling or used machinery collection centres.

11. TROUBLE SHOOTING

The following are inspection operations that can be carried out by the operator with the machine powered down and unplugged from the power mains. For any other type of anomaly or non-specified machine inconveniency, unplug the machine from the power mains, do not proceed with direct attempts at repairing the machine and immediately contact qualified and authorised sales service network personnel.

1) The machine will not start up:	*- Check to ensure that the power mains plug has been plugged in correctly* *- Check to censure that the differential, magneto-thermal and main switches are all correctly engaged* *- Check the condition of the power supply cable and mains plug. If they are damaged, please contact qualified and authorised personnel for replacement.*
2) Water found under the machine	*- Check to censure that the tray discharge is not obstructed.*
3) Slow dispensing speed	*- Check filter and spout/sprayer conditions to make sure they are clean.* *- Check to make sure that the coffee has not been ground too finely*
4) Irregular steam supply	*- Check to censure that the spout nozzles are not obstructed.*

12.0 ALARMS AND SIGNAL MESSAGES

A distinction is kept between alarm and signal messages. Signal messages are a special type of alarm that will not cause interruptions to the standard machine operations. The alarm and signal messages are furthermore divided into system-stored and non-stored messages. All system-stored alarms and signal messages remain active even if the machine board is switched off and then switched back on again.

ALARMS	***DESCRIPTION***	***INTERVENTION REQUIRED***
E00 EEprom error	Eeprom alarm that is triggered if an error is detected in the eeprom.Entering a reset procedure, all the factory data will be restored back onto the eeprom (only if this alarm is system-stored).	By the installation and service technician.
E01 Communic.	Communication alarm with the slave board. It is triggered if there is a serial connection failure between the two boards. This alarm is an auto-reset alarm.	By the installation and service technician.
E02 Water empty	Water empty alarm. Please consult the air break load management paragraph under the operation section.	By the installation and service technician.
E03 Config.	Cconfiguration alarm that is triggered if no slave is detected upon machine start up. In this case it is necessary to switch off the machine board, reset the anomaly and then switch the machine board back on again.	By the installation and service technician.
SYSTEM-STORED ALARMS		
E20 Pressure switch	Pressure switch alarm. Please consult the resistance management paragraph under the operation section.	By the installation and service technician.
E21 Boiler load	Boiler load alarm. Please consult the boiler load management paragraph under the operation section.	By the installation and service technician.
SIGNAL MESSAGES		
E40 No group	No group present warning. This signal is triggered of the group presence input (INPUT2:7) is open. This is an auto-reset warning.	
E42 Coffee grounds	Coffee grounds decounter warning.	
E43 Water treatment unit	Water treatment unit decounter warning. Each pump management activation decreases the counter that is displayed in the preventive action menu (6).When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	
E44 Grinders	Grinder decounter warning. Each grinder activation decreases the counter that is displayed in the preventive action menu (6).When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	
E45 ESP filter	Espresso filter unit decounter warning. Except for reset functions, each group movement will decrease the counter that is displayed in the preventive action menu (6).When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	

ALARMS	DESCRIPTION	INTERVENTION REQUIRED
E46 EV decounter	Electro valve decounter warning. Each pump management activation decreases the counter that is displayed in the preventive action menu (6).When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	
E47 Seals	Seals decounter warning. Except for reset functions, each group movement will decrease the counter that is displayed in the preventive action menu (6).When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	
E48 Boiler	Boiler unit decounter warning. Each pump management activation decreases the counter that is displayed in the preventive action menu (6).When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	
E49 HACCP	HACCP decounter warning. Each pump management activation decreases the counter that is displayed in the preventive action menu (6).	
	When the decounter is down to zero, the signal is triggered and displayed only in the maintenance mode. Said signal shall have no effect on standard machine operations. To erase this signal , simply reset the decounter.	
E50 Omnifet xx	The omnifet xx signal stands for the following: 0. Water entry EV (out3:1) 1. Espresso coffee EV (OUT3:2) 2. Cappucino making unit EV (OUT3:3) 3. “American coffee” EV (OUT3:4) 4. Doser unit magnet (OUT3:5) 5. By-pass EV (OUT3:9) 6. (OUT3:10) 7. (OUT3:11) 8. not implemented 9. Clockwise rotation (OUT3:7) 10. Anticlockwise rotation (OUT3:8)	
SYSTEM-STORED SIGNAL MESSAGES		
E60 Grinder	Grinder warning. Please consult the (decaf) strong and standard espresso coffee dispensing management paragraph under the operation section.	
E61 Group	Group warning. Please consult the (decaf) strong and standard espresso coffee dispensing management paragraph under the operation section.	
E62 ESP. pump	Espresso pump warning. Please consult the (decaf) strong and standard espresso coffee dispensing management paragraph under the operation section.	
E63 Doser unit	Doser unit warning. Please consult the (decaf) strong and standard espresso coffee dispensing management paragraph under the operation section.	

POS.	COMPONENTI
A	Interr. generale di sicurezza
B	Fusibili 10A
C	Filtro rete
D	Triac controllo temp. gruppo caffe'
E	Triac controllo temp. caldaia solubili
F	Protettore termico caldaia solubili a riarmo
G	Protettore termico caldaia espresso a riarmo
H	Protetore termico automatico caldaia esp.

INGRESSI
1 Rilevatore di flusso
2 Micro vuoto acqua
3 Micro chiamata acqua
4 Micro dosatore
5 Micro presenza gruppo
6 Micro rotazione gruppo caffe'
7 Pressostato
8 Micro sportello per dek
9 Micro reset fondi caffè

CONNETTORI SCHEDA

INGRESSI

IN2
Connettore 6471 16 vie

INPUT2

Pin	Descrizione	Colore	Pin	Descrizione	Colore
1	+5V rilevatore di flusso	Bianco/nero	9	Pressostato	Rosso/blu
2	Rilevatore di flusso	Bianco/marrone	10	Micro sport.dek	Grigio/nero
3	Comune	Giallo	11	Micro fondi	Viola
4	Micro vuoto acqua	Arancio	12		
5	Micro chiamata acqua	Azzurro	13		
6	Micro dosatore	Arancio/azzurro	14		
7	Micro presenza gruppo	Grigio/viola	15		
8	Micro rotazione gruppo	Verde	16	Comune	Giallo

OUT3

Connettore minifit
12 vie

Pin	Descrizione	Colore
1	Ev.ingresso acqua	Bianco/viola
2	Ev.caffè espresso	Giallo/viola
3	Ev.cappuccinatore	Verde/arancio
4	Ev.caffè americano	Giallo/arancio
5	Magnete dosatore	Marrone
6	Motore gruppo	Giallo/rosso
7	Rotazione Rw	Bianco/rosso
8	Rotazione Fw	Bianco/grigio
9	Ev.by pass	Bianco/giallo
10		
11		
12	+24Vdc	Giallo/nero

Sonda livello

IN1
Connettore 6471 2 vie

Scheda pulsantiera

TRX
Connettore 6471 3 vie

OUT2 (pompe)

Connettore minifit
2 vie

Pin	Descrizione	Colore
1	Pompa espresso	Blu 1.5mmq
2	Pompa carico	Marr. 1.5mmq

OUT6 (macinino)

Connettore femmina 2 vie MATE-N-LOCK
contatti femmina

Pin	Descrizione	Colore
1	Motore macinino	Blu 1.5mmq
2	Motore macinino	Nero 1.5mmq

POWER SUPPLY

Connettore femmina 3 VIE MATE-N-LOCK
contatti femmina

Pin	Descrizione	Colore
1	+ 24Vdc	Rosso 1.5mmq
2	N.C.	
3	GND	Nero 1.5mmq

OUT1 (resistenza)

Connettore femmina 2 vie MATE-N-LOCK
contatti femmina

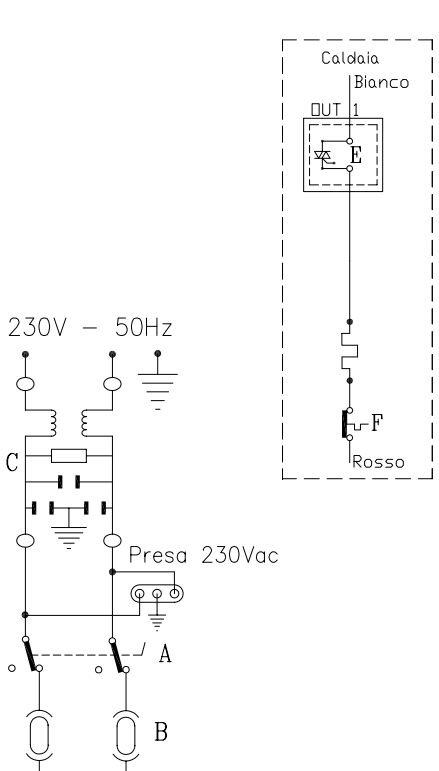
Pin	Descrizione	Colore
1	Resiste. 1700W	Azzurro
2	Fase 230V	Bianco

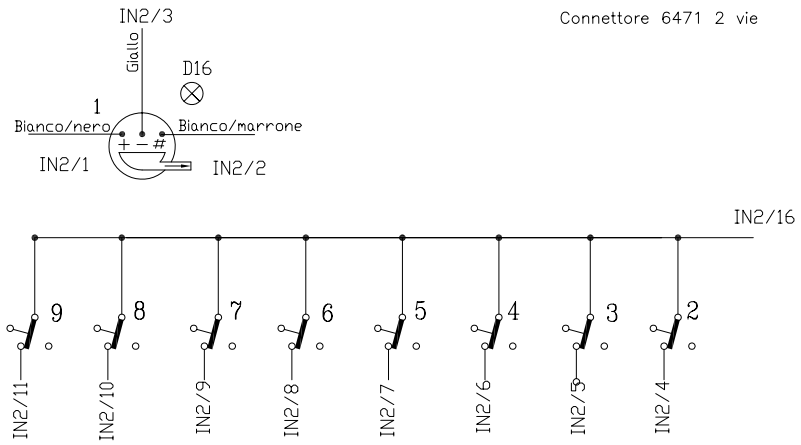
CONNETTORE GRUPPO

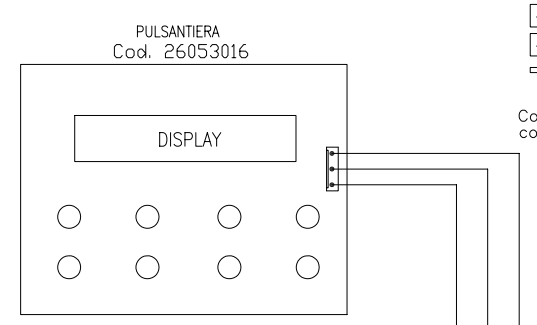
GRUPPO CAFFE'

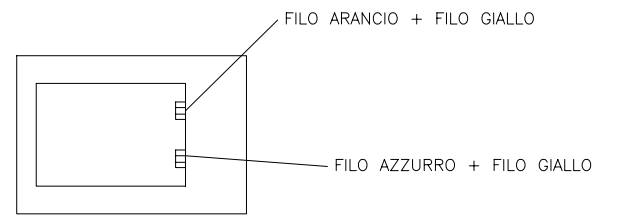
Connettore femmina 15 VIE MATE-N-LOCK
contatti femmina

Pin	Descrizione	Colore	Pin	Descrizione	Colore
1	Magnete dosatore	Marrone	9	Motoriduttore gruppo caffè	Giallo-Rosso
2	Micro magnete	Arancio-azzurro	10	230V x candeletta	Bianco 1.5mmq
3	Rotazione Rw	Bianco-rosso	11	230V x candeletta	Rosso 1.5mmq
4	Rotazione Fw	Bianco-grigio	12	Micro sportello	Grigio-nero
5	Macinino	Nero 1.5mmq	13	Micro f.c.gruppo caffè	Verde
6	Macinino	Blu 1.5mmq	14	Micro presenza gruppo caffè	Viola-Grigio
7	+ 24 Vdc	Giallo-Nero	15	Comune ingressi	Giallo
8	EV.gruppo caffè	Giallo-Viola			









Coperchio vaschetta vista dall'alto
dal retro del distributore

Approvato

Verificato

Data 08.02.07	SCHEMA ELETTRICO-SCHEMA ELECTRIQUE	Cod. 11112211
Disegn. Beccalli	SOFIA BV 351 1GR	
A3(0.6=1)DP.A2		0

Bianchi vending group

SCHEMA IDRAULICO
SCHEMA HYDRAULIQUE
ESQUEMA HIDRÁULICO

Cod. 11112311
Data 25.07.2007 | Dis. Beccalli
Ediz. 0

ITALIANO

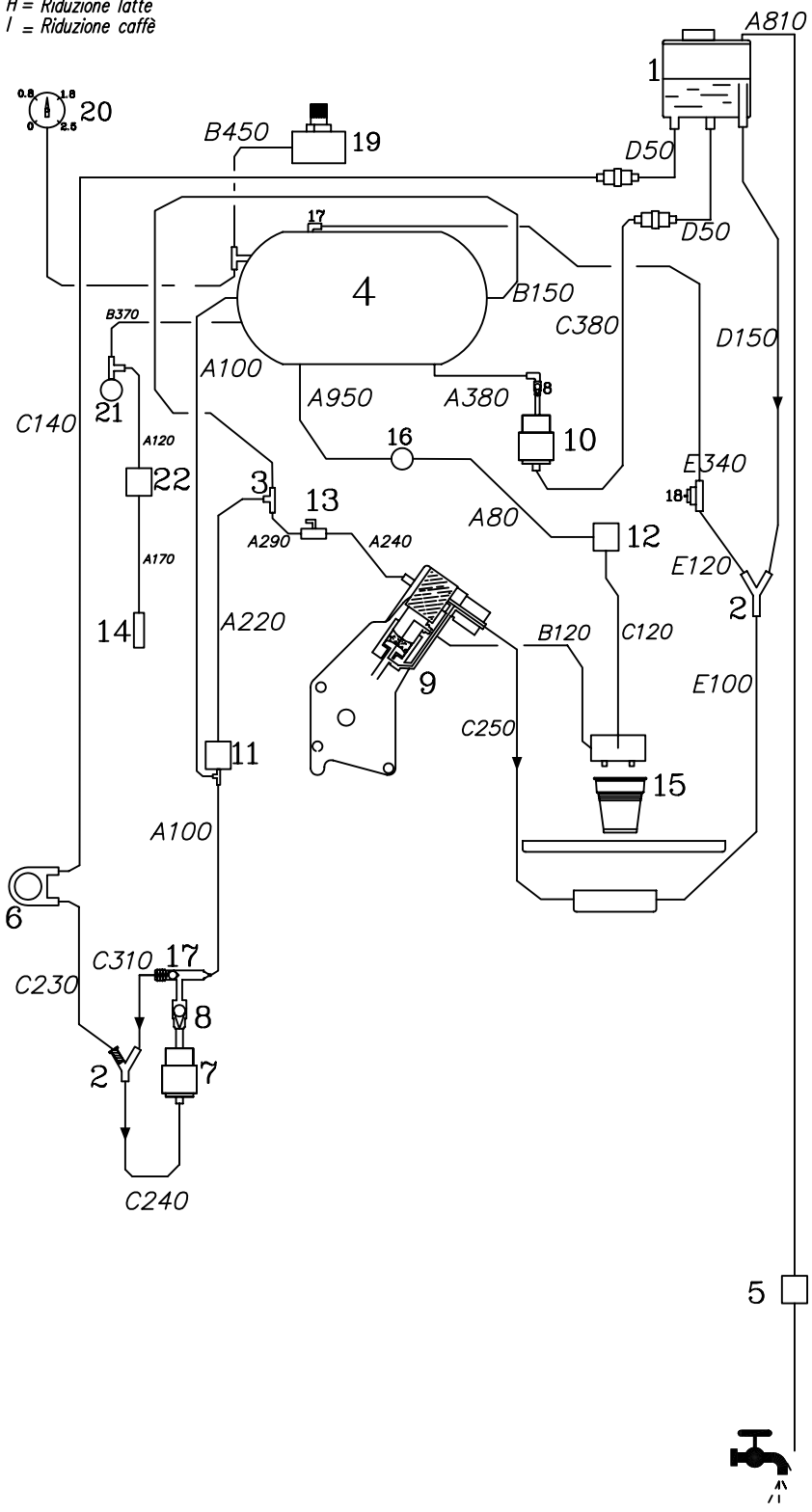
1 Vaschetta
2 Raccordo Y
3 Raccordo a T
4 Caldaia
5 Elettrovalvola ingresso
6 Rilevatore di flusso
7 Pompa caffè espresso
8 Valvola di non ritorno
9 Gruppo caffe
10 Pompa caldaia
11 EV. by pass
12 EV. caffè americano
13 Rubinetto caffè espresso
14 Cappuccinatore
15 Vano erogazione
16 Manopola acqua calda
17 Valvola di sicurezza
18 Clixon
19 Pressostato
20 Manometro
21 Manopola cappuccinatore
22 Ev. cappuccinatore

A = Tubo teflon 4x6
B = Tubo silicone 3x6 AM (C)
C = Tubo silicone 5x9 AM (C)
D = Tubo silicone 8x12
E = Tubo silicone 6x9
F = Tubo pvc crist. 12x16
G = Tubo pvc crist. 9x12
H = Riduzione latte
I = Riduzione caffè

*= Vite + rondella per ferma tubo (cod.vite32010226 cod.rondella35155216)

**= Aggiunta tubo 6x9 come spessore su filtro

DENOMINAZIONE
Sofia BV 351 1 GR



APPROVATO

VERIFICATO

FIRST INSTALLATION FORM

WARRANTY ACTIVATION

Dear Customer, The hereby form is a necessary feed-back for the Bianchi Vending Group S.p.A. Considered this form as formal report of first installation, the BVG, kindly, asks you to fill this form in, once the process of first installation of the unit has been performed and to return it back to us. Please send it via FAX or e-mail as specified below. Should anything go wrong during the first installation process, please, specify the matter occured with relative brief description of the fact in the dedicated box then send this form to the same fax n° or e-mail address as below. Bianc hi Vending Group S.p.A. will activate the 1 (one) year warranty, starting from the moment the hereby form is received correctly filled in all voices. Therefore, in addition to what said, in case the hereby form is not returned to the BVG, automatically the company will start the warranty from the date of sale of the unit.

Warraty policy available in the Use & Maintenance manual attached to machines and on the: www.bianchindustry.com

To be sent *FAX* : **+39 035 883304 or e-mail: customercare@bianchivending.com**

Model:		Serial Number	
Sender: *(company title)*		Sender tel. N° (eventual call back by the BVG)	
Installation Date		**Sender E-mail/ Fax N°** (to confirm the warranty being activated)	

MATTER DURING THE FIRST INSTALLATION?	YES	NO

IF YES, WRITE HERE A DESCRIPTION

MATTER DURING FIRST INSTALLATION, SPECIFY PARTS REQUIRED

	Code	**Qty**
Missing parts		
Wiring/cable		
Electronics		
Power supply		
Keypad		
Hydraulic circuit		
Pump		
Electrovalve		
Motor/electromagnet		
Microswitch		
Coffee Group		
Grinder / doser		
Cup dispernser		
Stirrer Dispenser		
Refrigerator group		
Water filter		
Other		

Satisfaction note

(write eventual notes about product and/or service provided by the BVG. This to improve and better satisfy Your needs in the future)

WARRANTY CLAIM

Dear Customer, The hereby form is a formal warranty claim to be sent via fax or e-mail as specified below. Please, to describe the matter occured in the dedicated box. Beware, the BVG, could ask to return the faulty component back for quality inspection purposes. On top of that, to verify the right claiming

Warraty policy available in the Use & Maintenance manual attached to machines and on the: www.bianchindustry.com

To be sent *FAX* : +**39 035 883304 or e-mail: customercare@bianchivending.com**

Model:		Serial number	
Sender *(company title)*		Customer tel No. (eventual call back by the BVG)	
Date		**Sender E-mail/ Fax N° (to confirm the warranty being activated)**	

MATTER OCCURED

PARTS REQUIRED

	Code	Qty
Missing parts		
Wiring/cable		
Electronics		
Power supply		
Keypad		
Hydraulic circuit		
Pump		
Electrovalve		
Motor/Electromagnet		
Microswitch		
Coffee Group		
Grinder/doser		
Cup Dispenser		
Stirrer Dispenser		
Refrigerator group		
Water filter		
Other		

Satisfaction note

(write eventual notes about product and/or service provided by the BVG. This to improve and better satisfy Your needs in the future)

BVM351 SUPERAUTOMATIC – *KEYBOARD LAYOUT*

SELECTION MODE

Button Nr	Functions
1	*Espresso*
2	*Long Coffee*
3	Milk Dispensing timed through the Frother Press once = milk supply quantity A Press twice = milk supply quantity B
4	Cappuccino ONE-TOUCH Pressing the button once, the machine will make a cappuccino.
5	*2 Espressos*
6	*2 Long Coffees*
7	*American Coffee*
8	*Stop the activated selection*

PROGRAMMING MODE

To enter the programming mode, press the STOP button (nr. 8) for 4 seconds

Button Nr	Functions
1	INCREASE VALUES/ SCROLL UP
2	MOVE CURSOR ON DISPLAY
3	----------
4	----------
5	DECREASE VALUE / SCROLL DOWN
6	ENTER / CONFIRM VALUE OR SCROLL OPTIONS
7	----------
8	*ESCAPE (exit from menu or from programming mode)*

MAINTENANCE MODE

To enter the maintenance mode, press the DECA button (nr. 4) for 4 seconds

Button Nr	Functions
1	*Alarm Reset*
2	*Scroll alarms (if any)*
3	*Full test on one selection (then press the button you want to test)*
4	*Coffee Group rotation test*
5	----------
6	*View selections. In this mode, button nr. 6 allows you to scroll the amount of selections for each button. Button 8 to exit this mode.*
7	Press this button for 3 seconds to activate the automatic opening of the grinders (1 turn of the screw)
8	*ESCAPE (exit maintenance mode)*

On SELECTION MODE : Hold for 4 seconds. The key 3, the dealer will perform a cleaning of the coffee group, it will last for 3 minutes, after execute the delivery of 2 espressos.
Hold for 4 sec. Key 7, the dealer will perform a cleaning of the coffee deliver.

BIANCHI VENDING GROUP S.p.A.
Corso Africa 9 - 24040 Località Zingonia, Verdellino (BG) - ITALIA
tel. +39.035.4502111- fax +39.035.883.304

Cod. 11112921 Ediz. 10/2009